



The official newspaper of  
Big Bend National Park and the  
Rio Grande Wild & Scenic River

Volume 30, number 1  
2010 Anniversary Edition

Everett Townsend, the ‘Father of Big Bend,’ looking over the land he wanted to see established as a national park.

8 What to See & Do

Find out how to make the most of your time in the park. Recommendations and suggested trip itineraries for one day, three day, or week long visits can be found here.

9 Day Hikes

Find descriptions of many of the most popular easy and moderate hiking trails here. Detailed descriptions of each trail include length, average time required, difficulty, and location.

16 Park Maps

Don’t know where you are? The park map can help. Detail maps of the Chisos Basin and Rio Grande Village are also found here. A list of useful phone numbers for services both in and outside the park is also included.

Big Bend At 75

Welcome to Big Bend National Park and the Rio Grande Wild and Scenic River! Over 800,000 acres await your exploration and enjoyment. From an elevation of less than 2,000 feet along the Rio Grande to nearly 8,000 feet in the Chisos Mountains, Big Bend includes massive canyons, vast desert expanses, forested mountains, and an ever-changing river.

Here you can explore one of the last remaining wild corners of the United States: an area of wilderness that 75 years ago a few insightful people thought to preserve for all future generations as a National Park. It took nine years after it was authorized in 1935 to buy the land. In 1944, our nation was in turmoil. The Second World War raged across the globe and Americans were deep in the fight. Amid the chaos, fear, and uncertainty of the time, a spark of hope and the promise of a brighter future were born: just six days after D-Day, Franklin Delano Roosevelt signed the deed transferring the last parcel of land into the care of the National Park Service, establishing Big Bend National Park on June 12, 1944. This year, Big Bend National Park celebrates its 75th anniversary, three quarters of a century of preserving this wild land of savage beauty. But who was responsible for making this happen? What was the land like before it became a park? Answers to these questions can be found in this 75th anniversary edition of the Paisano.

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What is a Paisano?

*Paisano* is a Spanish word meaning countryman or peasant that is used throughout the American southwest as a nickname for the greater roadrunner.



Big Bend on the Internet

Plan your next trip, or learn more about the fantastic resources of the Big Bend by visiting the official National Park websites. These are your best source of information for weather conditions, river levels, research, park news, trip planning, and more.

**Big Bend National Park:**  
<http://www.nps.gov/bibe/>  
**Rio Grande Wild & Scenic River:**  
<http://www.nps.gov/rigr/>

Got Water? Got Salt?

Carry and drink water—at least 1 gallon per person per day. Eat salty snacks and regular meals. As you exercise, you lose salt and water (over a quart and a half in an hour during arduous exercise). You need both to survive, especially in this extreme environment.

Emergencies

Call 911 or 432-477-2251  
24-hours a day or contact a Park Ranger.

Superintendent’s Message:

Big Bend and the Rio Grande Wild and Scenic River are two of the most spectacular parks administered by the National Park Service. We trust that you will have a wonderful time as you explore and experience these great parks.

It was 75 years ago that Big Bend was authorized. From the very beginning, National Park Service officials who evaluated the proposed park saw that the area met the standard of national significance. Since the park was established, it has become even more clear why Big Bend is special and why the park founders fought to have it set aside. From outstanding night skies and fossils to rare and endangered species, our partners and employees research and protect the plants, animals, rocks, and historic areas, interpret the multifaceted Big Bend story, and keep our visitors safe. The work is not done. New discoveries, exciting possibilities, and ever-present challenges build on the legacy of that original act 75 years ago.

National parks like Big Bend belong to us all, and as such we have a shared responsibility for their protection. Please be mindful of that as you spend time here. Take only photographs and leave only footprints as you discover what makes Big Bend special.



*William E. Wellman*  
Superintendent William E. Wellman

From:  
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National Park Service  
U.S. Department of the Interior

Big Bend National Park  
Rio Grande Wild & Scenic River

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National Park Service

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Superintendent: William E. Wellman

The National Park Service was established on August 25, 1916. . . “to conserve the scenery and the natural and historic objects and the wildlife. . . and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.” Authorized by congress in 1935, and established in June 1944, Big Bend National Park preserves the most representative example of the Chihuahuan Desert ecosystem in the United States. As conservation educators, the park’s Division of Interpretation and Visitor Services provides guided walks, talks, evening slide programs, workshops, and other educational activities as well as written materials such as this newspaper.

Big Bend Natural History Association  
Executive Director, Mike Boren

The Big Bend Natural History Association, established in 1956 as a private, non-profit organization, champions the mission of the National Park Service in facilitating popular interpretation of the scenic, scientific, and historic values of Big Bend and encourages research related to those values. The Association conducts seminars and publishes, prints, or otherwise provides books, maps, and interpretive materials on the Big Bend region. Proceeds fund exhibits, films, interpretive programs, seminars, museum activities, and research.

Photograph Credits

When possible *The Paisano* proudly uses photographs of the park taken by visitors and submitted to the website visitor photo gallery. These photographs bear the photographer’s name; all uncredited images are NPS photographs.

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Official Park Websites

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www.nps.gov/rigr/

The National Park Service cares for the special places saved by the American people so that all may experience our heritage.

EXPERIENCE YOUR AMERICA™



The US Calvary was in Big Bend during the Mexican bandit raids of 1916

Viewing the sunset against the Sierra del Carmen mountains is a signature Big Bend experience, underlined by the irony that the mountains aren’t a part of the National Park; in fact, they aren’t even located in the United States. In addition to defining the curve that forms the Big Bend, the Rio Grande also serves as the international boundary between the United States and Mexico. Throughout much of its history the border along the Rio Grande has often been fluid, allowing people of both countries to come and go as needed. However, the border is an artificial boundary imposed on the natural environment, and as such is subject to political and social pressures.

Increased border restrictions have led to a number of important changes that affect the international boundary in Big Bend. A visit to Big Bend is a wonderful experience to learn about the park’s history and to experience a wide variety of natural history and recreation options. The park’s border with Mexico is part of our shared landscape and a chance to experience and learn about our neighbors. A few simple steps can help keep the park safe for everyone who is here.

Crossings Remain Closed

As a result of a 2002 US Customs and Border Protection decision, there are NO authorized crossings in Big Bend National Park. *Crossing at Boquillas, Santa Elena, or other locations along the Rio Grande is prohibited.* The closest legal ports of entry are Del Rio and Presidio, Texas.

The U.S. Attorney’s Office has indicated that it will prosecute any criminal violations regarding any illegal crossings. If you re-enter the United States at any point within Big Bend National Park, you may be liable for a fine of not more than \$5,000 or imprisonment for up to one year, or both.

When Visiting A Border Park

Big Bend National Park shares the border with Mexico for 118 miles. This is a remote region. *Visitors should be aware that drug smuggling routes pass through the park.*

If you see any activity which looks illegal, suspicious, or out of place, please do not intervene. Note your location. Call 911 or report it to a ranger as quickly as possible.

Each year hundreds of people travel north through the park seeking to enter the United States. It is possible you could encounter an individual or small group trying to walk through the park with little or no water. Please *do not stop*, but instead, note your location and immediately call 911 or contact a ranger as soon as possible. Lack of water is a life-threatening emergency in the desert.



Hand-crafted items made in Boquillas, Mexico can only be purchased legally at the Chisos Mountain Lodge, camper stores and the bookstore in the Panther Junction visitor center, not from sellers along the river.

Border Merchants

Mexican Nationals may approach you from across the river to sell souvenir items (walking sticks, bracelets, crafts, etc.). If you agree to look at/or purchase their items and the Mexicans cross the river, they may be arrested for being in the U.S. illegally. They will be held until deported back to Mexico through Presidio (100 miles away). Mexican merchants will be arrested for illegal commercial operations which may result in a fine and/or additional incarceration while awaiting adjudication prior to deportation.

*Items purchased will be considered contraband and seized by officers when encountered.* Rocks, minerals, archeological items, etc. cannot be purchased, imported, or possessed in the national park.

In addition, illegal trade impacts the resources of the park in a number of negative ways, including the creation of social trails, the cutting of cane along the river, erosion of riverbanks and an increased amount of garbage and contaminants along the Rio Grande watershed. Supporting this illegal activity contributes to continued damage of the natural resources along the Rio Grande, and jeopardizes the possibility of reopening the crossings in the future.

Sotol walking sticks and other handcrafted items made in Boquillas, Mexico can now be purchased legally at a number of sales outlets inside and outside of the park.

Fees: Your Dollars at Work

Why Do Parks Charge A Fee?

Much of the funding for Big Bend and other national parks comes from American taxpayers. However, protecting this land and ensuring that you have a safe, enjoyable and educational experience costs more than this tax base provides. Therefore, the U.S. Congress determined that people who use federal lands should pay fees to help offset the difference.

Where Does Your Money Go?

Twenty percent of the money collected from entrance and campground fees is redistributed to units of the National Park System that do not charge fees to assist in their upkeep and to upgrade those areas. Eighty percent of the money collected here stays in Big Bend National Park.

How Is Your Money Used?

Your entrance and campground fees help Big Bend National Park complete important projects that directly benefit you and other park visitors.

Recent Projects at Big Bend Made Possible By Your Fees:

- Major expansion of the Panther Junction visitor center
- Castolon historic district exhibits

Current Projects:

- Emory Peak Trail rehabilitation project to reduce erosion
- North Rosillos/Harte Ranch wayside exhibit
- Backcountry campsite construction

Entrance Fees at Big Bend National Park

Private noncommercial automobile  
\$20 (valid for 7 days)

Single entry (foot, bike, motorcycle, etc.)  
\$10 (valid for 7 days)

Big Bend Annual Pass  
\$40 (valid for one year from month of purchase)

Interagency Annual Pass  
\$80 (This pass will be valid for one year from month of purchase for entrance fees to federal public land fee areas)

All currently valid passes will be accepted until expired, including the Golden Eagle Pass, Golden Age Passport, and Golden Access Passport.



# Park Partners



# Big Bend Natural History Association

- Publish trail guides, brochures and the this newspaper
- Provide annual grants for research projects and administer grants and gifts received for the park
- Support the park's volunteer, Junior Ranger, and educational outreach programs

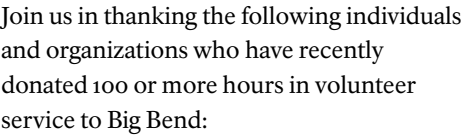
When preparing for a future visit, or remembering a previous trip, BBNHA offers both phone and internet sales. Phone orders can be placed during business hours seven days a week by calling 432 477-2236. Please browse through our online store at <http://www.bigbendbookstore.org/> You can enjoy safe, secure shopping in the



The Friends of Big Bend National Park host a yearly membership event and in-park tour, which is an excellent opportunity to get to know the board of directors governing the organization and perhaps even to get more involved with the group. Also, several fund-raising events occur in the major Texas cities throughout the year and are another opportunity to get involved and help with the mission of the Friends Group. The group's website is a great place to look for upcoming events and current happenings.



Most of these volunteers work in visitor centers and as campground hosts; however, volunteers also help in science and resource management, maintenance, and administration. Regardless of age or background, these folks share a desire to make a positive contribution to the preservation and management of Big Bend National Park.



Big Bend custom license plates are now available for your car, truck or motorcycle from the state of Texas and most of the cost will be used to help preserve and protect Big Bend National Park, one of the world's last great wildernesses. It may be the most fulfilling contribution you'll ever make.



You can also join online at [www.bigbendbookstore.org](http://www.bigbendbookstore.org)

# News Briefs

## Chisos Basin, Panther Junction, and Persimmon Gap To Get Efficient Lighting

Big Bend is famous for vibrant night skies. The National Park Service, in partnership with The National Park Foundation, Friends of Big Bend National Park, and Forever Resorts, has contracted with Musco Lighting to install new light emitting diodes (LED) in the Chisos Basin, at Persimmon Gap, and in the visitor center at Panther Junction. LEDs are energy efficient, produce less heat, and can create customized directional lighting. Waste light is minimal with LEDs, which was a major cause of ground-level light pollution from old-fashioned conventional bulbs. The technology upgrade will result in lower electricity costs for the park and more dramatic night skies for visitors in the Basin. Another energy savings will be realized at the Panther Junction visitor center. The incandescent lights used to illuminate museum exhibits produce a lot of heat. This increases the need to use air conditioners. Once the cool-light LEDs are installed, use of air conditioners will be significantly reduced. Thanks to our partners, park managers expect a reduction in the park energy bill by utilizing this cutting edge lighting technology. The changes will make the night sky even more spectacular.

## Park Rangers Begin Creating Video Podcasts

Soon fans of Big Bend will be able to watch park-produced videos online. Thanks to support from Friends of Big Bend National Park, park rangers purchased a new high definition video camera and an Apple Pro workstation to produce video podcasts. Big Bend joins other national parks like Grand Canyon, Yosemite, and Yellowstone, which pioneered park-produced video content. The staff is excited about this new way to share Big Bend resources with visitors. Videos will cover a variety of subjects, including visit planning, features about scenic park areas, how to plan a river trip, and allow everyone to visit parts of the park that can only be reached by rugged trails or 4x4 roads. The videos will be found on Big Bend’s park web page [www.nps.gov/bibe](http://www.nps.gov/bibe). Navigate to the multimedia section. If you have a wifi-capable laptop or PDA, you can use the wireless internet at the Chisos Mountain Lodge. In the near term, there will be only a few videos as rangers create content. Eventually, the free videos will be available on iTunes, AppleTV, and on the park website in a variety of sizes and formats.

## Rio Grande Village Nature Trail Reopens

In September 2008, a hurricane broke up over northern Mexico and caused a flood that extensively damaged park facilities near the river. This included the boardwalk section of the nature trail over the beaver pond by the campground. The first phase of the repair project was to build a birding and wildlife-viewing platform. This has been finished and the platform is now open. (see photo at right) A detour map located by the platform shows how to access the rest of the trail. Feel free to explore the new platform and see if you can find some of the species of birds that make the Rio Grande Village their permanent or seasonal home or see the tiny endangered gambusia fish. The view from the nature trail is spectacular.

## Boardwalk Wildlife Viewing Platform Finished



The floating platform at the Rio Grande Village beaver pond was finished in December, 2009.

# It’s Quite A Ride

Park Ranger Rob Dean

In the old days, Big Bend, the last frontier of Texas, was like a wild mustang; untamed, untouched, a swift powerful animal admired from a distance with wonder and envy. Free from the rapidly encroaching civilization and tied to its inhospitable landscape, the mustang was tested again and again, and won bucking and breaking all who tried. Civilization is like a young fearless cowboy with a rawhide reata, throwing a wide loop around everything within reach, breaking the wild mustang’s will. By 1883, the wild mustang was being driven and corralled by the young cowboy, who rode a magnificent steed shod with iron - the iron horse of the Southern Pacific railroad.

The impact of the rails on the last frontier was immediate. As track was laid, new communities were established at watering holes to support the rail workers with food, drink, and other entertainment – communities such as Sanderson, Emerson, Longfellow, Rosenfeld, Maxon, Taber, Haymond, Warwick, Marathon, Lenox, Altuda, Strobel, Alpine, Paisano, Nopal, and Marfa. Only Sanderson, Marathon, Alpine, and Marfa remain as testament to the whimsical young cowboy’s wanderings. The newly built railheads allowed more young cowhands with their newly spun lariats to create commerce and opportunities over the tired mustang’s range. The steed’s steel rail linked east to west, north to south, and was most heavily influenced by the direct line from Chicago to San Antonio. Chicago was the pinnacle of western civilization and the dream destination – you knew you made it when you pulled into Union Station.

These were the thoughts running through my mind as I finished feeding the NPS horses, cleaning their stalls, ending the day. The smells and the heavy clomp of hooves fed my emotions. The corrals molded my imagination. We had just returned from two weeks annual leave, riding Amtrak from Alpine to Chicago and back, linking the wild mustang and the fearless cowboy. The journey was exceptional in its impact, encouraging recollections of other travelers along the rails, recalling tales that I knew by heart.

Nineteen year old cowboy Johnny Ward was sent by rail to Chicago from Alpine in the late 1880’s to buy cattle for the G4 Cattle Company. The G4 was one of the first large ranches of Big Bend, stretching from Oak Spring and the Window to Terlingua Creek and Aguja Fria to the west. Ranch manager Captain Jim Gillette trusted and respected young Ward enough to send him to purchase cattle. Ward Mountain, on the west flank of the Chisos, was named for the young cowboy. As riders we traveled the same rail.

The influence of the rails touched many lives, may even have been responsible for the creation of the national park. E. E. Townsend, revered as the father of Big Bend, met and courted his wife along the rails at the now defunct community of Haymond. One wonders where we would be had the rail been placed elsewhere. Haymond now is a mere memory, only a sign and a few worn-down shacks. When we rode through, some miles east of Marathon, I looked for Townsend’s ghost.

Passing through Del Rio, I wondered how Captain Jack Hays and his failed Big Bend exploration would have fared if the railway was behind him in 1848. Hays and entourage left Del Rio to find a southern trade route linking Chihuahua City with New Orleans, only to find the region inhospitable and deadly. In the Chisos, Hays and his surviving followers nearly starved to death before crawling into Fort Leaton near Presidio. A generation would ride through before a suitable route was discovered.

Rolling onward, the trail ride to Chicago cinched San Antonio, Austin, Ft. Worth/ Dallas, Little Rock. In St. Louis, the rail crosses the Mississippi and the Missouri rivers; giant, navigable waterways which are the very definition of the term. I understand now the puzzlement of our visitors who see the Rio Grande and are struck by its mere trickle of water.

On a side trip, we followed the Illinois River, which connects the Great Lakes at Chicago with the Mississippi. We joined friends near their Kampsville farm, staying overnight in an old Sears-Roebuck catalogue two-story house sent by river barge from Chicago. I was reminded of Frank Rooney hauling his Sears-Roebuck catalogue house by 4-up wagon from Dugout Wells to Government Springs, and then to its final resting place at Oak Springs to be occupied by its last residents, the Homer Wilson family.

In the great city of Chicago, the Midwest hub for finance, science and the arts, the many connections to Big Bend are unknown to the

normal traveler, but to me they are as strong as the ribbon of steel that tied the experience to my imagination. It was from office buildings in Chicago that Howard Perry, the Terlingua quicksilver tycoon, wielded control of the politics, mining resources, and commerce in early Big Bend for four decades. Chicago’s Field Museum is home to the magnificent Tyrannosaurus rex specimen known as Sue – a commanding display that is an example of the most powerful carnivore that wielded control of the late Cretaceous landscape in Big Bend for two million decades. The music scene in Chicago is well known and is recognized by its own style of blues. A playbill highlighted guitarist Junior Brown, a guitar phenom whose style is his own and who plays a very unusual double necked guitar called a guit-steel; this one-of-a-kind instrument was made by cowboy luthier Mike Stevens in, of all places, Alpine, Texas where this trip started.

Waiting to board for the trip home, smelling the train exhaust, feeling the rumble of the powerful engines, watching people gather at Union Station, wondering who among them was headed to West Texas and Big Bend, I hoped some fellow traveler would feel the experience and the emotion as I had. Maybe even like riding a good horse.





# The Father of Big Bend

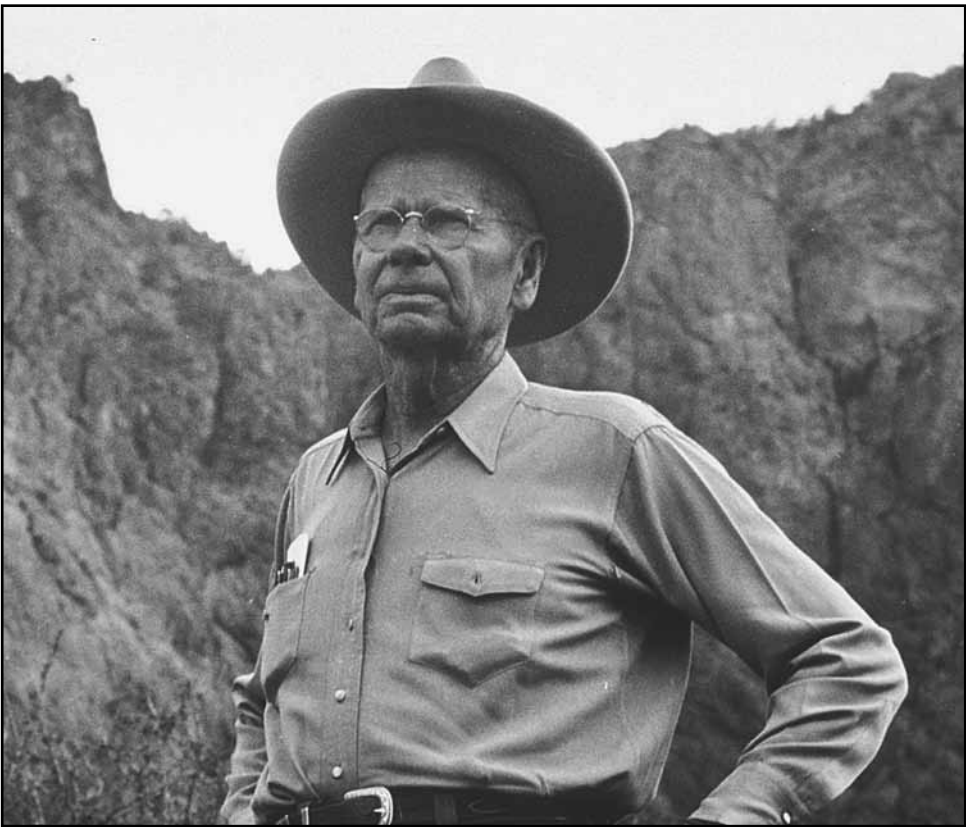
Park Ranger Jennette Timmer

What does it take to create a National Park? What would need to be done if you knew of an incredible, unspoiled piece of land that you wanted to be shared and preserved for all future generations? This was the challenge that confronted Everett E. Townsend in the early 1930s.

Townsend first came to the Big Bend region at the age of 23. Following jobs as a Texas Ranger and Deputy U.S. Marshal, he became a mounted inspector for U.S. Customs in Presidio County. During patrols of the area he explored the region and was awed by the wonders of Big Bend country. Later he recalled a trip to the Chisos Mountains where the view from the South Rim made him “see God as he had never seen Him before and so overpoweringly impressed [him] that [he] made note of its awesomeness...”

Park several months later. A state park was an important step in the right direction, but fell short of the full scope of Townsend’s dream. Before it could be added to the National Park System, an evaluation was necessary to ensure it met the criteria for becoming a National Park. Roger Wolcott Toll, Superintendent of Yellowstone, was assigned this task. He had already rejected most of the 129 proposed additions that he inspected. However, after visiting the Big Bend area for six days in 1934, he concluded that “the Big Bend Country seems to be decidedly the outstanding scenic area of Texas,” and endorsed Big Bend becoming a National Park.

This endorsement helped bring about Public Law No. 157, enacted by Congress and signed by President Roosevelt on June 20, 1935. This measure authorized the



Everett Townsend photographed in Green Gulch near the Basin in the 1940s

*“I wish you would take a map of the State showing the counties, put your pencil point on the Rio Grande, just where the Brewster and Presidio County line hit that stream; then draw a line due East and at a distance of sixty miles it will again strike the River. My dream is to make the area south of this line into a park and I shall live to see it done.”*

*- Everett Townsend, 1933*

This experience sparked Townsend’s life-long dream of preserving the Big Bend area and sharing it with the nation. However, it wasn’t until he was elected to the State Legislature in 1932 that he found himself in a position to help make his dream of creating Big Bend National Park a reality. With his idea began the steps leading to the formation of our National Park.

Townsend knew that he couldn’t create a National Park by himself. He found an ideal ally in Amon Carter, publisher of the Fort Worth Star-Telegram, owner of a radio station and founder of the first television channel in Texas. The two men worked to popularize the idea of creating a park in West Texas. By 1933 they had garnered enough support to have the area set aside as Texas Canyons State Park, renamed Big Bend State

creation of Big Bend National Park and accepted the National Park Service’s request to set aside 1.5 million acres of land for recreational park purposes. This grand vision, however, would only be partially fulfilled. Big Bend would become a National Park, but with roughly half of the acreage authorized.

Between 1933 and 1942, \$1.5 million dollars were used to purchase 600,000 acres from private landowners. In the midst of the Great Depression and accompanying drought, it made financial sense for many ranchers to sell their arid West Texas land to the government, but it wasn’t an easy decision for everyone. One mother, whose oldest son was fighting in Europe, wrote President Roosevelt to implore him to save the family’s ranch for her son’s sake: “I wish

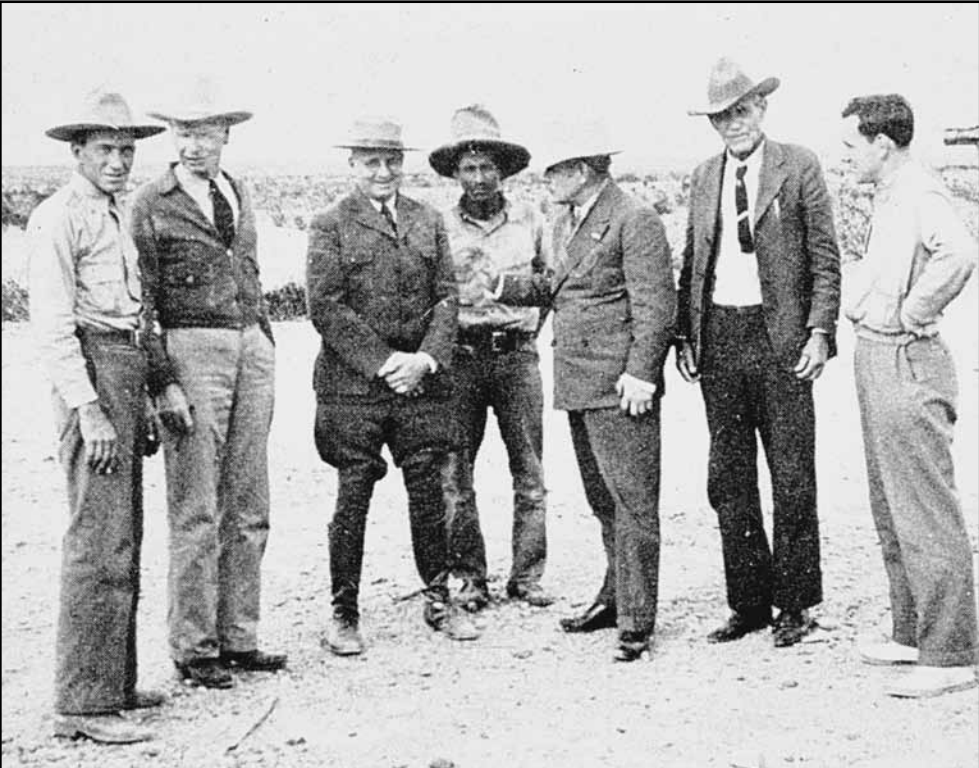
that you might read some of his letters in which he writes about the hills, canyons and trails that he longs for at home. The park project has passed since he entered the service; in fact his home was given away on D-Day when he was fighting for freedom and liberty.” For some ranchers, moving away from their land was another sacrifice during this financially unstable and war torn time. For park promoters, it was a symbol of hope for the future.

Even after approval from Washington and land acquisition, Big Bend still wasn’t ready to open to the public: roads, trails, and facilities needed to be developed. The Civilian Conservation Corps (CCC) was an ideal workforce. Between 1934 and 1942, several hundred young men worked in the Chisos Mountains, building the roads, stone

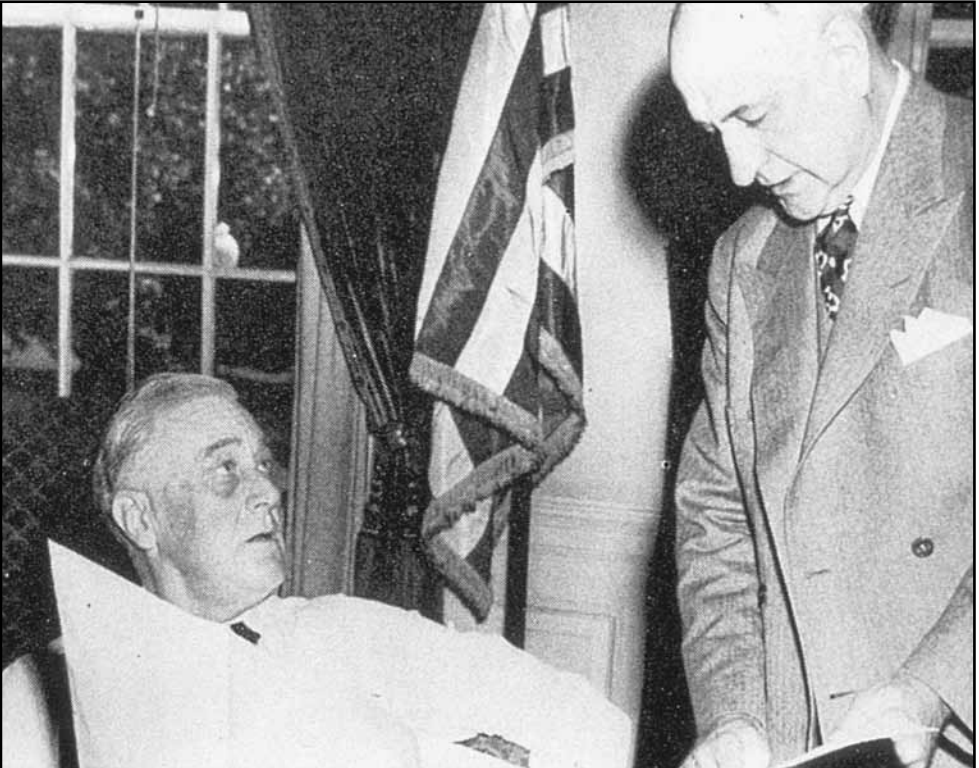
cottages, and trails. CCC infrastructure was so sturdy it is still being used 75 years later.

After a decade of work, Townsend’s vision for Big Bend was ready to be fulfilled. On June 12, 1944, Secretary of Interior Harold Ickes accepted the deed to the National Park from Amon Carter. That day, while American troops were securing beach heads in Europe, Big Bend opened its gates to visitors.

Everett Townsend lived to see his dream become a reality. After years of hard work, he spent the last four years of his life enjoying the national park until his death in 1948. On the Park’s tenth anniversary, his family was presented with a posthumous honorary park ranger commission – a fitting tribute to the man remembered as “the father of Big Bend National Park.”



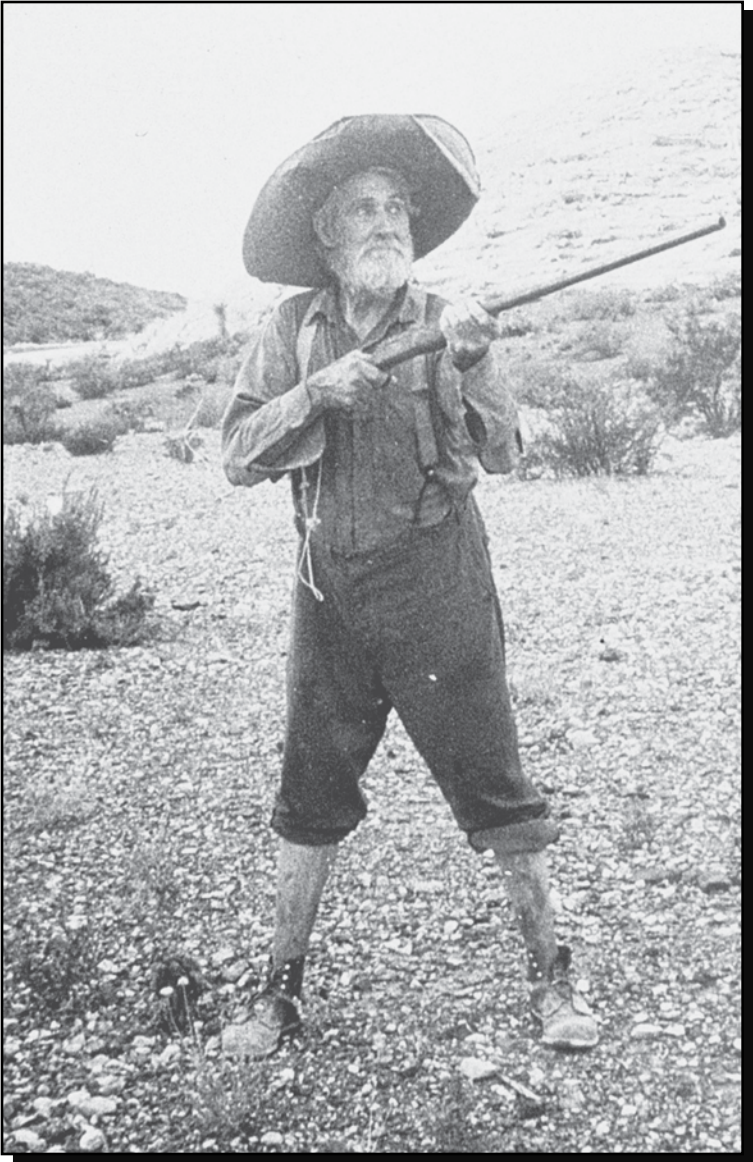
Park Service officials closing the deal with one of the last private landowner, Elmo Johnson.



June 6, 1944 - Amon Carter presents President Roosevelt the deed for Big Bend National Park.



# 1930s - 1940s in the Big Bend



Bobcat Carter, a park fixture in the 1930s-40s, would jump out and scare motorists near Persimmon Gap. Bobcat played the role of eccentric desert hermit. Tourists would laugh once they realized he was acting and give him money or food.



Mexican boy with his donkey: He is filling canvas bladder bags with water from the Rio Grande to take home. The bag was lined with candelilla wax making it water-tight.



A family camping at the old sites near the Hot Springs. Note the Sierra del Carmens in the background and the one-wheel trailer.



The challenges of getting provisions into the high country involved arguments with stubborn burros about the steep climb ahead.



Early visitors enjoying the view



Cowboy on a donkey herding angora goats.



'El Viejo' was another desert character from south of the Rio Grande





Emory Peak, April 2007, approximately midnight. This 360-degree photo shows the Milky Way skirting the entire horizon. The Zodiacal band and gegenschein glows are visible, which are reflections of sunlight from interstellar dust. The small bright spots on the horizon line are far-off cities such as El Paso, TX, and Chihuahua City, MX, whose lights are only visible due to this time exposure photo. The park radio tower is on the right .

Growing up in a small city in Colorado, seeing the Milky Way galaxy was a nightly experience. As time went on, the city got larger, more lights appeared, the Milky Way got more difficult to see. It took a while to realize that it was happening but camping trips to the mountains made it obvious enough for my family to comment on it. While I attended college, I began a summer career as a river guide and once again being far from the city made the dark night sky something I looked forward to experiencing. Then I was invited to guide on the Rio Grande in the Big Bend. This was a real eye opening experience for me since I had never seen so many stars as I did when I first arrived. I was awestruck. And hooked.

Big Bend is known as one of the outstanding places in North America for star gazing; in fact, it has the least light pollution of any other National Park unit in the lower 48 states. One factor that makes this possible is simply the sparse human occupation of this

region. The obvious impression one gets of wildness in the Big Bend is the lack of visible lights indicating a house or a town. Most urban areas have such an abundance of light that very few stars are able to be seen. This can be a real surprise to visitors when they are outside in the Big Bend at night and see the Milky Way in its full glory for perhaps the first time in their life. Realistically one can see approximately 2000 stars on a clear night here compared to perhaps a few hundred in a medium sized city. The dark night sky has always been a visual impression in the Big Bend, with very few exceptions.

When recorded history began in the Big Bend, a traveler at night might see a dim glow of a campfire or a lamp through a window in an isolated camp, farm, or ranch house. The light would perhaps give comfort knowing that shelter, a meal or just other people were in the area. In the early 1900’s, the mining at Terlingua introduced modern lighting to a few of the larger buildings in the area. Seeing

this at night would definitely indicate more than just an isolated dwelling, it could mean “civilization” depending on who was viewing the lights. The light could also symbolize progress towards civilizing the frontier or bringing the 20th century to the citizens of the isolated Big Bend region.

Modern electric lights have changed the way people view and react to the night. Over the past hundred or so years, outdoor lighting has been increasing to the point where it’s always light out, even at night. Some lighting is for safety, advertising, or other societal reasons. It has, in effect, taken away the night. What ramifications does removing the dark night sky have on people? Does it make them feel safer? Has it changed what people do at night or how they view their surroundings?

Ancient peoples studied the stars for thousands of years and used these observations for navigation, predicting or confirming seasonal changes, and religious

purposes. Stories were woven about the meanings of the positions of different stars; answers to life problems were foretold in the movements of heavenly bodies. Past peoples used the stars because they were an integral part of life. That has changed in most of the world with the advent of the electric light.

It seems now that our society has begun to realize the value of a lightless night sky. To leave the city and the light gives park visitors and residents a glimpse into the past, where the night sky can be observed and studied, like people did for thousands of years. Recently, Big Bend National Park has begun the process of totally eliminating forms of light pollution to help visitors experience the wonders of a night sky free from modern intrusion. The installation of LED and shielded lighting is one of the steps to help insure that Big Bend National Park continues to be the best example of primeval night skies available today and for future generations.

# How Did Drinking Water Get To The Chisos Basin?

Park Ranger Christina Rinas

Need to wash your dishes, get a drink, or take a shower? For most of us it is as simple as turning on a faucet. In fact, the ability to easily obtain water is so much a part of our lives that we take it for granted, and assume that water will be available for our use wherever we go. As long as water continues to run out of the tap, we don’t often stop to think about where it comes from, nor the effect that our water use can have on a fragile desert environment like Big Bend.

Water is one of the most precious, important, and limited resources in the park. Its presence or absence places limits on development, and nowhere is this more evident than in the Chisos Basin.

In 1933 the Chisos Mountains became part of the newly created “Texas Canyons State Park,” eventually to become Big Bend National Park in 1944. Because of cooler summer temperatures and appeal to potential visitors, the Chisos Basin was targeted as an ideal place for the Civilian Conservation Corps (CCC) to set up camp and begin developing infrastructure. Before the camp could be established, however, a reliable water supply needed to be developed. In April of 1934, E.E. Townsend, M.T. McClure, and a crew of CCC workers spent three days digging a well, located below the present day campground. With the completion of the well, nicknamed “agua pronto,” (quick

water) the camp was approved, and construction of the Basin road began. Park officials were aware however, that agua pronto wouldn’t supply all of the water that was needed for the proposed lodge, cabins, and store.

In January of 1940 a second CCC camp came to Chisos Basin, and it quickly became apparent that the water demands of the 200 workers put a strain on the existing well. During a trip to the Chisos Mountains, H.E. Rothrock, acting chief of the NPS naturalist division in Washington, noted that the water usage in the Chisos Basin was exceeding the rate it took to recharge, and strongly recommended developing this area with these limitations in mind. In August of that year the CCC workers found more water at a depth of 383 feet. Ross Maxwell, geologist and the soon to be superintendent of the national park, opposed deeper drilling believing it could hit a fault zone, and result in the loss of the present water supply into a fissure. The search for water was temporarily halted in 1942 with the entry of the US into WWII and the resulting closure of the CCC camp.

In 1944 the state park officially became Big Bend National Park. By the following year the concessions were in operation, and soon after that the current water system again failed to meet the needs of the public. The park began hauling water in from a well located twelve miles from the Chisos

Basin, and funded the drilling of a new well. Hauling water put a big strain on the park budget, and the new well failed to produce enough water. It was now evident that a sustainable water supply couldn’t be developed in the Chisos Basin. In response to this realization, several actions occurred in the 1950s: Superintendent Lon Garrison directed that administrative headquarters and park residences be relocated to Panther Junction, where a more adequate water supply was found. In 1952 the park developed a new water delivery system for the Chisos Basin, pumping water from Oak Spring, located below and ½ mile from the Window Pouroff. Oak Spring remains the source of all water in the Chisos Basin today.

The infrastructure required to bring water from Oak Spring is immense. Water is captured in a spring box and piped to a 500,000 gallon storage tank. When the tank is full the inlet valve shuts off, and excess water flows out of the spring box and back into Oak Creek. When water is needed in the Chisos Basin a pump pushes water up 1,500 feet, at a rate of 40 gallons per minute, and over a distance of 2.5 miles from the storage tanks at Oak Spring to an upper 500,000 gallon storage tank located behind the stone cottage lodging units. Water is then distributed to facilities and residences.

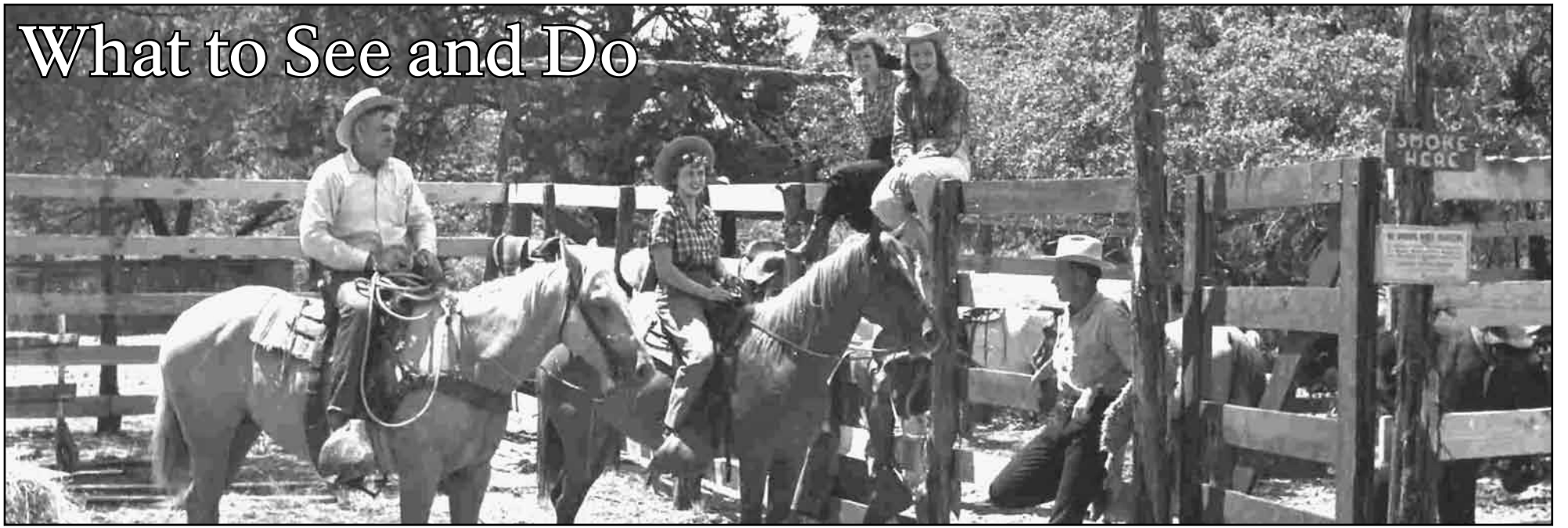
Taking water from Oak Spring is not without impact. The flow at Oak Spring is closely tied to precipitation; peak flows have been

recorded at a rate of over 150 gallons per minute. Yet during drought periods the flow can be much less. In June of 1990, an all time low of less than 20 gallons per minute was recorded; not enough to meet demand at that time. At certain busy times of the year, such as spring break, so much water is taken out of the spring that little reaches the creek.

It is difficult to assess exactly what impact our water consumption has on Oak Spring, but it does diminish shallow groundwater, which supports a unique plant community and provides a home for wildlife. The largest known individual of the rare robust oak is found in this area, as are rare orchids like the crested coralroot. Reliable surface water and thick vegetation provide food that is important for wildlife that many park visitors come to see each year, such as black bears, deer, and a variety of birds. During dry times, concentration of wildlife at shrunken water sources increases the risk of predation and territorial conflicts.

What draws many visitors to Big Bend is the opportunity to see unique plants and wildlife, and to enjoy beautiful, natural scenery. Water shapes the landscape, brings life, and sustains life and diversity of our park. Please use our water wisely and sparingly. Save water for the plants and animals that depend on it for survival, and help preserve the natural beauty and diversity that Oak Spring brings to the Chisos.





Visitors getting ready to ride horses to the South Rim in the 1950s.

## One Day

The visitor centers at Persimmon Gap, Panther Junction and the Chisos Basin are excellent places to begin your visit. Park staff there can answer your questions, and exhibits provide additional orientation. If time allows, drive to the **Chisos Basin** to take in spectacular views of the **Chisos Mountains**. Walk the 0.3-mile self-guiding **Window View Trail** to get a feel for the mountain scenery and one of the best sunset views in the park.

A trip along the **Ross Maxwell Scenic Drive** will give you a taste of the Chihuahuan Desert and will lead you to the Rio Grande. This drive highlights the geologic splendor and complexity that the Big Bend is famous for. There are many scenic overlooks and exhibits along the way. Sotol Vista, Mule Ears Overlook and Tuff Canyon are all worthwhile stops. The short walks to the Sam Nail Ranch, Homer Wilson (Blue Creek) Ranch and a visit to the Castolon Historic District will give you a glimpse into Big Bend's past.

A highlight is the short walk into **Boquillas Canyon**—one of Big Bend's most scenic spots. Travel to the end of the Boquillas Road near Rio Grande Village to access the trailhead. The trail affords a good view of the small Mexican village of Boquillas, thought to be named for the small cave-like holes in the cliff that look like little mouths ('bocas' in Spanish). Perhaps you will see Singing Victor standing on a sandbar, known to regale rafters with song. Just remember that it is illegal to purchase items from Mexican nationals.

## Three Days

With three days to spend in the park, you can explore the major roads more thoroughly and still have time for hiking. In the Basin area, consider hiking the **Window Trail** (5 miles round trip) or the **Lost Mine Trail** (4.8 miles round trip); consult the *Hiker's Guide to Trails of Big Bend National Park*, for sale in park visitor centers, for trail descriptions.

In addition to the Basin and Ross Maxwell Scenic Drive (see suggestions for "one day") you can drive to **Rio Grande Village**, perhaps stopping at Dugout Wells along the way to walk the short Chihuahuan Desert Nature Trail. Many visitors are unaware that there is an enjoyable three mile trail from Daniel's Ranch to the Hot Springs. It follows the river. Alternately, the historic Hot Springs can be reached via an improved dirt road (not recommended for 'dooley' pickups or RVs)

The famous Balanced Rock can be found at the end of the Grapevine Hills Trail. A 20 minute drive down the Grapevine Hills dirt road will take you to the trailhead. Check with rangers for road conditions as this road usually is passable only with high clearance vehicles. The hiking trail is mostly easy but there is a steep section at the end of the trail where the balanced rock is located. A good time for pictures is the early morning or late afternoon.

## One Week

With a week or more to spend in Big Bend, endless possibilities are open to you. You'll have plenty of time to explore the roads mentioned in the previous sections, and will also have time to drive some of the "**primitive**" dirt roads. For these, you'll need a high clearance or four-wheel drive vehicle. *Always check at visitor centers for current road conditions, and carry appropriate gear.*

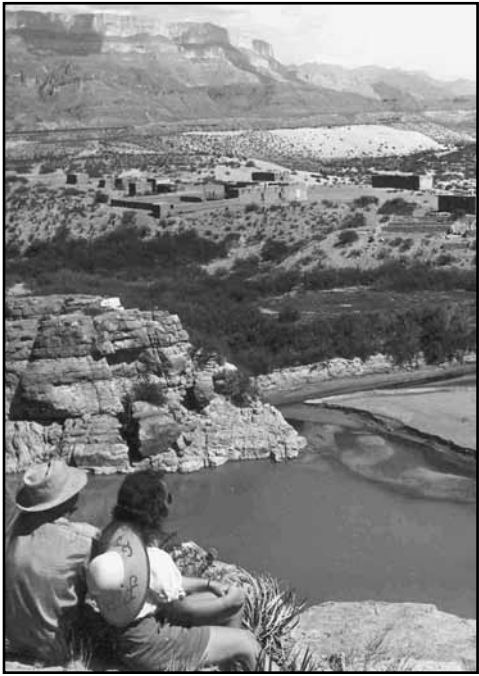
The River Road, Glenn Springs Road and Old Ore Road are some of the more popular primitive roads. A visit to Ernst Tinaja near the south end of the Old Ore Road is a Big Bend highlight. The Pine Canyon Trail, located at the end of the primitive Pine Canyon Road, is an excellent hike to experience firsthand the transition from desert to mountains.

If you don't have high clearance or four-wheel drive, improved dirt roads such as the Old Maverick Road, Dagger Flat and Grapevine Hills will get you "off the beaten path." Hike the Chimneys Trail, or Mule Ear Springs for a closer look at the desert environment.

If you'd like to explore the Chisos Mountains, trails to Boot Canyon, Emory Peak and the South Rim offer good views of the park and take you into another world which seems far removed from the desert. There are plenty of opportunities for overnight backpacking along these trails. A backcountry use permit is required and can be obtained at park visitor centers.



Sharing stories at a Chisos Basin cabin



Looking across the river at Boquillas, MX



Ladybird Johnson, Secret Service staff, and Rangers rafting the Rio Grande in 1968.

### Floating the Rio Grande

If you have the time and a spirit of adventure, you may want to consider a river trip. Seeing the park's canyons from the middle of the Rio Grande is both fascinating and gratifying. There are many possibilities, from half-day floats to extended seven-day excursions. Park Rangers can recommend a trip that meets your abilities and interests. Outfitters and equipment rental companies are listed on page 16. See "Backcountry Planning" on page 14 for additional information.

### Backcountry roads

If you have a high-clearance or four wheel drive vehicle, Big Bend's backcountry roads call for further exploration. There are over 200 miles of dirt roads in the park. Improved dirt roads like the Dagger Flat and Grapevine Hills roads are usually in good condition and accessible to normal passenger vehicles, except following rainstorms. Unimproved dirt roads, such as the Old Maverick Road, Old Ore Road, or the River Road, generally require high-clearance vehicles and/or four wheel drive. *Always* check current road conditions at a visitor center before traveling any of the park's primitive roads. Standard backcountry road conditions are listed on page 14.

### Enjoying Your Visit

No matter how limited your time in Big Bend, remember that you will enjoy the park more if you stop your car and explore on foot. That doesn't mean that you have to hike miles on steep grades; there are many short, easy walks and roadside exhibits where you can stretch your legs and enjoy the sights, smells and sounds of the Chihuahuan Desert.

Hiker's guides and road guides are available at visitor centers throughout the park, and they offer more detailed information about Big Bend's trails and roads. Attending **ranger-led walks** and **evening programs** are also good ways to learn more about Big Bend; check at the visitor centers and park bulletin boards for current activities.

Remember, you will NOT be able to see everything on this trip. You will probably enjoy the park more if you choose a few spots and explore them thoroughly to get a taste of what Big Bend has to offer. Then, come back again sometime to see the rest!





# Take a Day Hike on Big Bend Trails

From the 7,832 foot (2,387 m) summit of Emory Peak, to the banks of the meandering Rio Grande, visitors will find over 200 miles of hiking trails in Big Bend National Park. Trails range from strenuous primitive routes through rugged desert backcountry to short handicapped-accessible pathways. Whatever your style of hiking, you can find it in abundance in Big Bend.

On this page are descriptions of some of the most popular easy and moderate hiking trails, divided by the geographic areas of the park. Most of these trails are perfect for shorter day hikes of up to several hours.

Trail	Trailhead Location	Round Trip (mi/km)    (avg. time)		Elevation (ft/m)	Description
Eastside — Panther Junction and Rio Grande Village					
<b>Grapevine Hills</b> <i>Balanced Rock</i>	Grapevine Hills Road - 3.5 miles west of Panther Junction High clearance recommended.	2.2/3.5	1 hour	240/73	<b>Easy</b> Follows a sandy wash through boulder field. A short but STEEP climb at the end over beautiful eroded granite takes you to a large balanced rock.
<b>Hot Springs</b> 	End of Hot Springs Road. Unpaved and narrow road.	0.75/1.2	1/2 hour	0/0	<b>Easy</b> Walk past historic buildings to the riverside hot spring. Take a bathing suit and soak in 105°F water. <i>Spring is subject to flooding due to rising river levels.</i>
<b>Daniel's Ranch to Hot Springs Trail</b>	Daniel's Ranch parking area, west of Rio Grande Village	6/10	3.5 hours	100/31	<b>Moderate</b> Trail leads from Daniel's Ranch to the Hot Springs. Cliff dropoffs prevent access to the river along most of the route.
<b>Boquillas Canyon</b>	End of Boquillas Canyon Road	1.4/2.3	1 hour	40/12	<b>Easy</b> Begins with a short climb, then descends via a sandy path to the river. Ends near a huge sand dune "slide."
The Chisos Mountains					
<b>Basin Loop</b>	Chisos Basin Trailhead (near the Basin Store)	1.6/2.6	1 hour	350/107	<b>Moderate</b> Connects the Laguna Meadow and Pinnacles Trails. Nice views of the Basin area.
<b>Window View</b>  	Chisos Basin Trailhead (near the Basin Store)	0.3/0.5	1/4 hour	0/0	<b>Easy</b> Level, paved, handicapped accessible. Great mountain views. The best place in the Basin to catch sunset through the Window.
<b>Lost Mine</b> 	Basin Road mile 5 at the pass	4.8/7.7	3 hours	1100/335	<b>Moderate but steep</b> Provides excellent mountain and desert views. For those who want a shorter hike, 1 mile down this trail is a great view to the southeast.
<b>The Window</b>	Chisos Basin Trailhead or Basin Campground	5.6/9.0 4.4/7.0	4 hours 3 hours	980/299 500/152	<b>Moderate with steep return</b> Descends to the top of the Window pouroff. Great scenery and wildlife viewing. For a shorter hike, start at the Basin campground.
<i>Smoking is prohibited on all trails in the Chisos Mountains.</i>					
Westside — Ross Maxwell Scenic Drive					
<b>Santa Elena Canyon</b>	Ross Maxwell Drive 8 miles west of Castolon	1.6/2.6	1 hour	80/26	<b>Easy</b> Crosses river sand and rocks, including wading Terlingua Creek. Switchbacks ascend and then the trail gradually drops back to the river in the canyon.
<b>The Chimneys</b>	Ross Maxwell Drive mile 13	4.8/7.7	2 hours	400/122	<b>Moderate due to length</b> Flat and scenic desert trail to rock formations. Look for rock art. No shade.
<b>Mule Ears Spring</b>	Ross Maxwell Drive mile 15	3.8/6.1	3 hours	20/6	<b>Moderate</b> A beautiful desert hike to a small spring. Spectacular geology and mountain/desert views.
<b>Upper Burro Mesa Pouroff</b>	Ross Maxell Drive mile 6	3.6/5.75	2 hours	300/91	<b>Moderate</b> Walk in the wash downstream through two canyons to reach the upper lip of a waterfall that is wet only after rain. Do not take this trail when storms are likely due to a lack of escape routes.
 = Self-guiding trail  = Accessible trail					
Looking for more hikes and information?					

For information on longer, more challenging routes, or to plan an extended backpacking trip, stop by any park visitor center. A large selection of maps and trail guides are available and park rangers can assist you with trip preparations and backcountry permits. Visitor center bookstores carry a large selection of maps and guides. Below are a number of items that can assist in planning your Big Bend adventure.



*Hiker's Guide to Big Bend National Park*  
Updated in 2005. Covers all major trails in the park, from short self-guiding nature trails to strenuous backpacking routes. \$1.95



*Guide to paved and improved dirt roads*  
Describes points of interest visible from all paved and improved dirt roads in the park. \$1.95



*Guide to backcountry roads*  
Updated in 2004. Detailed mileage logs of Old Ore Road, Glenn Spring Road and River Road. Good descriptions of historic sites and scenery. \$1.95



*Chisos Mountains Trails Map*  
A topographic map that includes all trails in the Chisos Mountains. Includes trail lengths and descriptions. 99¢



*Hiking Big Bend*  
In collaboration with National Park rangers, Laurence Parent has compiled a comprehensive guide to 44 of the most popular hikes. Photos show terrain and views. Describes difficulty, elevation changes, and maps needed. Also includes three hikes in Big Bend Ranch State Park. \$14.95



The sturdy Dorgan House fireplace looks out over the Rio Grande valley.

## Featured Walk

### Dorgan House Ruin

Distance: 0.25 - 0.5 miles

It's another beautiful Big Bend day and a trip to Santa Elena Canyon is high on your list. As you wind your way along the Ross Maxwell Scenic Drive, the rugged landscape certainly captures your attention. Perhaps a question forms in your mind: How did people make a living in this seemingly desolate land? If that's the case, there's a stop along the way you might want to make, something new to explore. Tucked away along the road between Castolon and Santa Elena Canyon is the new Sublett - Dorgan Trail. Stop at the paved pullout 4.8 miles from Mile Marker 0 after Castolon and enter a world gone by. This ½ mile, easy to moderate walk will take you back to the days when floodplain farming was conducted along the river. The Sublett's Grand Canyon Farms brought large-scale mechanization to the Rio Grande, transforming the area; where now groves of mesquites stand there were acres of cotton, sorghum, alfalfa, corn, wheat, and melons.

Investigate the remains of the old stone house owned by James and Melissa Belle Sublett who came to Castolon in 1913. Records are sketchy as to whether the Subletts ever lived here. However, business partner Albert Dorgan and his wife Avis Ann did occupy this home for 10 years before constructing their own, the ruins of which you will find further down the trail. Follow the wide dirt trail to the east through grasses and desert scrub. Ahead are a few old grizzly mesquites forming a canopy gate beckoning you to walk further. La Casita, which was built for farm hands, is your next stop. Poke around this adobe home, partially restored albeit not to historic standard.

The trail continues up the moderately steep mesa to a junction where a metal sign points to the Dorgan and Sublett homes. The stone lined path to the right takes you to the Sublett's home, which has pretty much returned to the earth. Be gentle here as the area is fragile. From here the Subletts had a commanding view of their farm operation in the floodplain below. Today cars traveling on their way to the canyon can be heard rather than the clip clop of horses and wagons. When the noise of the cars pass, and quiet returns to the hill top, take a moment and listen. Can you hear the quiet banter of James and Melissa Belle as they sit on their porch?

Continue north up the mesa until you reach the remains of the 1200 square foot Dorgan home. You'll notice two outstanding features: a massive two-way fireplace made of petrified wood and the impressive 360 degree view including an inspiring view of the hourglass opening of Santa Elena Canyon.

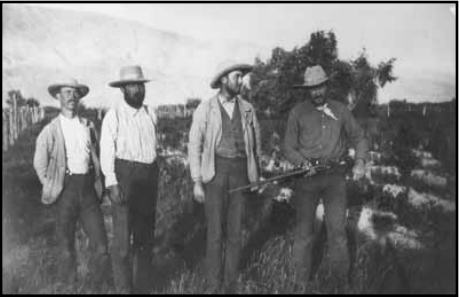
Standing on the mesa is like standing on the edge of time. Here human and nature's past stand in contrast—100 year old adobes melt in the presence of resistant 140 million year old limestone cliffs, yet the history remains—just as enduring.



# Birds and Birdwatching

Park Ranger Mark Flippo

For years, people with a passion for birds have visited Big Bend. It is a tradition of long standing: The history of bird study in Big Bend goes back well before the park’s establishment in 1944. The first and perhaps most significant expedition was mounted in 1901. A US Biological Survey team, consisting of Vernon O. Bailey, Harry C. Oberholser and Louis Agassiz Fuertes, explored the region from May through July and documented the flora and fauna from Alpine to the Rio Grande. Bailey’s 1905 Biological Survey of Texas established the baseline for all surveys to follow. A second period of study began in 1928 and continued through 1935. Leading many of these expeditions were Josselyn Van Tyne and George Miksch Sutton, who collaborated in 1937 to publish The Birds of Brewster County, Texas. Based on their own field study and the findings of all previous researchers, it provided a list of 215 species of birds. Since that time, researchers, NPS



US Biological Survey team in Lone Pine California, June 1891. Left to right: Vernon O Bailey, C.H. Merriam, T.S. Palmer, A.K. Fisher. (National Museum of Natural History)

staff, and thousands of dedicated birders, have continued the exploration of the bird life of the Big Bend region. Through their efforts, the official park checklist has now grown to 452 species... and counting.

With this edition of the Paisano we enter the annual spring migration, the time of peak species diversity and hence, a time ripe for potential new discoveries. Beginning in late February and continuing into the first week of May, migratory birds begin arriving in the park, with a peak period occurring in the last two weeks of April and the first week of May. In this movement are many neotropical migrants returning from wintering ranges in Latin America, including hermit and black-throated gray warblers (first Texas & Big Bend record 1935 and 1936 respectively). Among the expected passage migrants comes the occasional rare and accidental species that have wandered off their normal course or are pushing the extreme edge of their normal range. In April 2007 a slate-throated redstart (1990) was an amazing find in the Chisos.

Also arriving in spring and staying through the summer will be neotropical species that nest in the park, including some Big Bend specialties. Lucifer hummingbirds (1901) generally arrive in late March, and can be found feeding on early-blooming ocotillos in the foothills of the Chisos and lower surrounding desert. Rare anywhere in Texas, at least one pair of dusky-capped flycatchers

(1932) have become fairly regular in the pine-oak woodlands of the high Chisos. The much-sought Colima warbler (1928, first confirmed nesting 1932) typically arrives in the high Chisos during the first week of April and can reliably be found along Boot Canyon. Painted redstarts (1928) have in the past several years been regular breeders in the Boot Springs area between late March and September.

If you are limited for time, head to the river and desert oases (including Rio Grande Village, Cottownwood Campground, Sam Nail Ranch and Dugout Wells). Nearly 75% of all the listed species have been observed in these water-wealthy areas. Gray, common black, and zone-tailed hawks are all probable in cottonwood areas along the river during the spring. The diversity of flycatchers is high, from the unmistakable and eye-stopping male vermilion flycatcher to noisy western, tropical (first nesting 1996) and Couch’s (first nesting 2007) kingbirds. Among the most colorful birds, male painted, lazuli and indigo buntings are most easily seen along the river, as is an impressive display of orioles, including orchard, Bullock’s and hooded.

While you are enjoying the birds, keep in mind that many of the migrant species you may observe are members of populations in decline. You can help in several ways: tread softly in fragile habitat and don’t damage water sources; don’t disturb nesting birds



Louis Agassiz Fuertes painted this portrail of a Mearns’s (Montezuma) quail based on his first encounter with the species in the Chisos Mountains in 1901. (Fuertes Illustration Collection: Cornell University.)

with excessive noise or intrusive attempts at photography. Above all, follow in the footsteps of those earlier observers: Please share your observations with us, particularly of rare or accidental species. Your detailed report becomes part of the record and is an aid to future researchers. Enjoy the birds of spring, and do all that you can to ensure their return next year.

# Here There Were No Churches

By Park Ranger Amanda Evans

For early settlers in the Big Bend, where homesteads were distant from one another, the family was a fixture of life in a community where neighbors typically only saw one another a few times per year. It was the women who anchored the home. These frontier women did not have the same access to advice and support that those living nearer to civilization did. They broke horses and roped cattle then went home to cook dinner and care for their children. Their hard work made life in such an isolated setting tolerable, even enjoyable. The life of one woman tells the story.

Nina Marie Seawell became the matriarch of her family at the age of 11. With the help of neighbor women, she was able to care for her two younger siblings and attend school. Nina showed great promise and received a partial college education in science and medicine. She married Curtis Hannold then followed the call of the West to Brewster County, Texas in 1908.

They transitioned into their new home with the ease of pioneering pros. They were excited to start their new life and quick to accept the help and advice offered to them. Like many of her fellow ranching wives, Nina planted a garden near her house. She carefully tended these vegetables to supplement her family’s diet. Nina nurtured the physical, spiritual, and emotional well-being of her family and friends. Guests and relatives alike enjoyed sitting on



Women of the Big Bend country. (Nellie Rice Collection)

*Here there were no churches, no social clubs, no quilting circles; distance and lack of leisure prevented these luxuries from being. If a woman living in the Big Bend had previously been considered “genteel” or “delicate”, these descriptions were no longer given much consideration after arrival, for here the family’s survival depended upon her strength.*

*- Starlene DeBord,  
from An Occasional Wildflower*

her porch surrounded by an ocotillo fence, listening as Nina read scripture or sang while playing her organ. “Due to the valleys and mountains, the sound echoed for miles providing accompaniment to the evening howls of the coyote, the snarl of the panther on his midnight hunt, and the lonesome singing of a cowboy camped along the draw.” Such moments of comfort and companionship were highlights of life on the secluded frontier.

Nina also filled the important role of healthcare provider for the remote population. People rarely had time to travel the long, unpaved roads to town in the event of injury or illness. After she perfectly set her stepson’s broken arm, residents of the surrounding ranches and mining settlements took notice and brought their sick or injured family members to Nina for medical attention. She combined the nurturing spirit of a mother with advanced medical knowledge, a role that was usually reserved for men.

Nina was just one local woman who displayed great skill and creativity in establishing her home and supporting her family. The women of the Big Bend worked hard to keep their households running and to cultivate family ties. A stable home life helped to relieve some of the tensions attributable to an isolated existence and made life in the desert pleasant.





There really are no problem animals—only problem people. Carelessness can kill. Don’t be responsible for the death of a wild animal. Your actions affect both Big Bend’s wildlife and future park visitors. With your help, wildlife and humans CAN live safely together in Big Bend National Park.

### Mountain Lions

Solitary and secretive, the mountain lion is Big Bend’s top predator, and is vital in maintaining the park’s biological diversity. Everywhere you go in Big Bend, you are in the territory of at least one lion. From mountain to desert, biologists estimate that the park has a stable population of approximately two dozen lions. Within the delicate habitats of the Chihuahuan Desert, mountain lions help balance herbivores and vegetation. Research shows that these large predators help keep deer and javelina within the limits of their food resources. Without lions, the complex network of life in Big Bend would certainly be changed.

Each year, an average of 130 sightings of mountain lions are reported by the visiting public within Big Bend National Park. While over 60 percent of these sightings were along park roadways, encounters along trails have also occurred. Mountain lions live throughout the park, including the Chisos Mountains, where they sometimes use man-made trails. The best plan of action is for you to be aware of your surroundings. Watch children closely; never let them run ahead of you. Avoid hiking alone or at dusk and dawn.

A free brochure with more information about mountain lions is available at all visitor centers.



**Do Not Feed the Animals.**  
**Not even once. It’s bad for them, they can hurt you, and it’s against the law. Don’t touch, don’t feed.**

### Please Help

#### In Developed Campgrounds

- Store food, beverages, toiletries, pet food, and dishes in the bearproof storage locker provided at your site.
- Keep your campsite clean. Take trash and food scraps to a dumpster.
- Dump liquids in restroom utility sinks, not on the ground.
- Ice chests and coolers are not bear-proof; store them in your vehicle.

#### Cyclists

- Use food storage lockers when provided.

#### At the Lodge

- Leave nothing outside your room, on the balcony, or on the porch.

#### In the Backcountry

- Never leave packs or food unattended.
- Avoid carrying odorous food and toiletries.
- Leave excess food and beverages in your trunk or food storage box.
- Carry out **all** trash, including orange peels, cigarette butts, and left-over food.
- Ice chests and coolers are not bear-proof; store them in your vehicle.

### Javelinas

For many visitors to Big Bend National Park, seeing a javelina (pronounced *hav-uh-LEE-nuh*) is a new experience. These curious creatures, also known as collared peccaries, are only found in the United States in Texas, New Mexico, and Arizona. They are covered with black, bristly hairs and generally weigh between 40 and 60 pounds. They usually travel in groups called bands that consist of 10-25 individuals. Peccaries have a highly developed sense of smell, but very poor vision. Physically, javelinas resemble pigs, but in reality, they are not closely related to pigs at all and have been genetically distinct from them for millions of years.

A javelina’s diet includes prickly pear cactus, grasses, mesquite beans, piñon pine nuts, fruits, berries, and seeds. Unfortunately however, many javelinas now include human food as part of their diet.

Every year we are seeing more and more campsites in the park raided by javelina. Although normally not aggressive, they can be when food is involved. Protect yourselves and the javelina by properly storing all your food inside a vehicle or in the food storage lockers provided in the campgrounds. Do not leave coolers or food boxes unattended on picnic tables or in a tent. Flatten tents when you are away from your campsite. It is important that javelinas and all park animals eat their natural food sources to stay healthy and safe. With your help, these unique animals can continue to thrive and thrill park visitors for years to come.



### Black Bears

The return of black bears to Big Bend National Park is a success story for both the bears and the park. Native to the Chisos Mountains, bears disappeared from this area by the 1940s. After an absence of nearly fifty years, bears began returning to the park from Mexico in the late 1980s. Today, wildlife biologists estimate that between 15-20 black bears may live in the park.

Black bears are omnivorous; their normal diet is comprised of large amounts of nuts, fruits, sotol and yucca hearts, and smaller quantities of small mammals, reptiles, and carrion. Bears normally avoid humans, but bears that learn to get food from human sources often become aggressive in their attempts to get more “people” food. Rangers may have to kill bears that lose their fear of people and endanger humans in their attempts to get our food.

Big Bend has made it easy to keep edible items away from bears. Campers at the Chisos Basin Campground, at High Chisos backpacking sites, and at some primitive roadside campsites will find bearproof storage lockers for storing all edibles. Hard-sided vehicles are also suitable for storing edible items. All dumpsters throughout the park are bearproof, as well.

A free brochure with more information about black bears is available at all visitor centers.



### If you encounter a bear or mountain lion:

- Do not run (you may resemble prey).
- Watch children closely and never let them run ahead or lag behind.
- Try to look large. Wave your arms. Throw rocks or sticks at it.
- If attacked, fight back.
- Report any bear or mountain lion sightings or encounters to a park ranger as soon as possible.



# Information and Services

## Ranger Programs

Join a park ranger for a guided hike, evening slide show, talk, or workshop on Big Bend’s natural and cultural history. These free programs are offered most days. Consult the Interpretive Activities Schedule posted on visitor center and campground bulletin boards for more information.

## Camper Stores

Forever Resorts Inc., operates camper stores year-round at three locations in the park: Castolon, the Chisos Basin, and Rio Grande Village. Groceries, camping supplies and souvenirs are available in all locations. The gas station at Panther Junction also has a limited selection of groceries.

## Banking

There are NO banking facilities in Big Bend National Park. ATMs are located in the park at the Chisos Mountains Lodge and the Rio Grande Village Store. The nearest bank is located in Study Butte, 26 miles west of park headquarters. Most stores accept major credit cards; however, some local services accept only cash. It is advisable to have small bills (\$1, \$5, \$10, \$20) since larger bills are often difficult to change.

## Lodging

The Chisos Mountains Lodge, operated by Forever Resorts Inc., is located in the Chisos Basin at 5,400 feet elevation. The lodge offers 72 rooms, plus a gift shop and dining room. For reservations or more information, please call 432 477-2291 or visit their website at [www.chisosmountainslodge.com](http://www.chisosmountainslodge.com)

## Gas Stations

Gasoline is available at two locations in the park operated by Forever Resorts Inc. The Panther Junction station offers gas and diesel, and may undertake some minor repairs. The gas station at Rio Grande Village offers unleaded fuel and propane.

## Post Office

A full-service Post Office is located at the Panther Junction headquarters, across the porch from the visitor center entrance. A mail drop is also available in front of the Chisos Basin store. Open M-F daily 8am - 1pm and 3pm-4pm except federal holidays.

## Showers and Laundry

Public showers and laundry facilities are located at the Rio Grande Village store.

## Fires

*Ground fires and wood fires are prohibited throughout the park.* Use only gas stoves or charcoal within a BBQ grill. Pack out all evidence of use, including ash. In the backcountry, charcoal fires are only allowed at roadside campsites and are prohibited in the High Chisos or zone camping areas.

## Wifi/Public Phones

Wireless internet is available at the Chisos Mountains Lodge. Public phones are located at visitor centers, campgrounds, camper stores, and the Chisos Mountains Lodge.

## Cell Phones

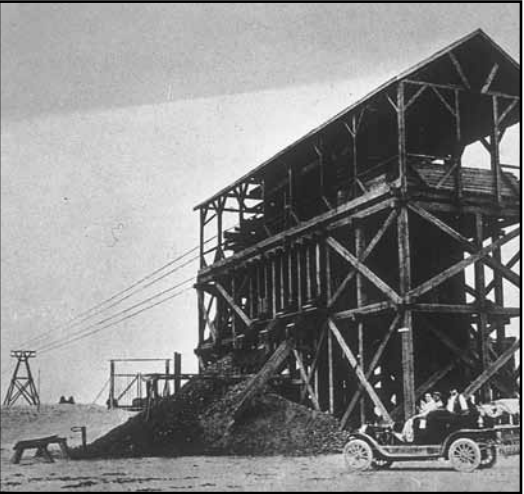
Limited cell phone coverage is available in the Big Bend area. *Do not* depend on your phone to work in the Chisos Basin or remote portions of the park.

## Recycling

Please use the recycling cans provided in campgrounds, around stores, and near visitor centers. On average, the park recycles around 100,000 pounds of material each year. Every pound of material that can be recycled means one less pound buried in the park landfill. Please recycle!

## Accessibility

All visitor centers are accessible. Wheelchair-accessible campsites and restrooms are located in the Chisos Basin and Rio Grande Village Campgrounds. The Chisos Mountains Lodge restaurant is accessible, as are some motel rooms. A Telecommunications Device for the Deaf is available at park headquarters. Employees with sign language abilities may be available. Some ranger-led programs are also accessible. The Window View Trail is paved and fairly level. A brochure on accessibility is available at all visitor centers.



The ore terminal facility in Ernst Valley

# Camping

## Tent Camping

The National Park Service operates campgrounds at Rio Grande Village, the Chisos Basin, and Castolon. The cost is \$14.00 per night for a site. Campsite fees can be paid in US currency, personal checks, or credit card. Camping is also available at primitive backcountry campsites in the Chisos Mountains and along backcountry roads. High-clearance or 4-wheel drive vehicles are necessary to reach most road sites. Backcountry permits are required and can be obtained in person at park visitor centers up to 24 hours in advance (see page 14).

Camping areas are often full during the Thanksgiving and Christmas holidays, as well as during spring break in March or April.

## Trailers & RVs

All park campgrounds can accommodate trailers and RVs, but vehicle lengths have a great deal to do with safely reaching the campground and finding a suitable space.

The only hookups available in Big Bend National Park are at Rio Grande Village in the 25-site, Rio Grande Village RV Park operated by Forever Resorts Inc. Although there is no size restriction, your vehicle must be equipped with water and electrical hookups as well as a three-inch sewer connection. Register at the store. For reservations call (877) 386-4383.

Near the RV park is the 100-site Rio Grande Village Campground operated by the National Park Service. Water, flush toilets, and a dump station are available. Set in a large grove of cottonwoods, the campground is adjacent to the Rio Grande. Many of the sites are pull-throughs. Generator use is limited: from 8:00 am to 8:00 pm daily. A no-generator use area is also designated.

The 60-site Chisos Basin Campground is rugged and hilly. The sites are small and most are not suited to recreational vehicles or trailers. The road to the Basin is steep and curvy, especially at Panther Pass—the road’s highest point. The road into the campground is a 15 percent grade. Trailers longer than 20 feet and RVs longer than 24 feet are not recommended.

Cottonwood Campground, near Castolon, offers pit toilets and potable water, but no hookups or dump station. *Cottonwood is a NO-generator campground.*

Big Bend’s unpaved roads are generally unsuitable for RVs and trailers. Overnight camping in any primitive site requires a backcountry permit, which can be obtained in person at park visitor centers up to 24 hours in advance (see page 14 for more information).

## Group Camping

Groups of nine or more are eligible to reserve a spot in one of the park’s Group campsites at the Rio Grande Village, Chisos Basin, and Cottonwood Campgrounds. Group sites are reservable year round and reservations may be made 360 days in advance through recreation.gov.

## Camping Limits

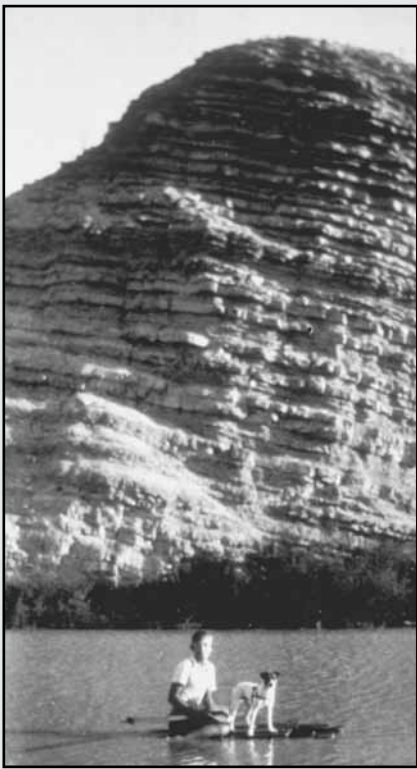
It is understandable that visitors may want to stay here in Big Bend forever. But, the park must be shared, so the park has instituted the following limits. Visitors can stay in the park only up to 14 consecutive nights, whether in a front or backcountry site, with a limit of 28 total nights in the park in a calendar year. Campers can occupy a specific site up to 14 total nights in a year. Between February 1 and April 15, visitors are limited to 14 total nights in the park.



The Chisos Basin Campground - 1950s

Developed Campgrounds at a Glance						
	Elevation (ft/meters)	Sites	Nightly Fee	Facilities	Registration	Comments
Chisos Basin	5,401 / 1,646	60	\$14.00*	Flush toilets, dump station	Self-pay station	Surrounded by rocky cliffs; many hiking trails nearby
Cottonwood	2,169 / 661	31	\$14.00*	Pit toilets, <i>no generator use allowed</i>	Self-pay station	In a cottonwood grove along the river. Grassy sites.
Rio Grande Village	1,850 / 564	100	\$14.00*	Flush toilets, dump station	Self-pay station	Largest campground; shady sites. Laundry and showers nearby.
Rio Grande Village RV	1,850 / 564	25	\$29.00 and up	Full hookups	RGV Camper Store	Concession-operated; register at the RGV store.
* \$7.00 with an eligible Federal Recreation Pass						





J. O. Langford's son and his dog floating on a home-made raft in Tornillo Creek in 1938.

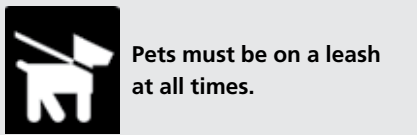
## Pets in the Park

### Pets in a Wilderness Park

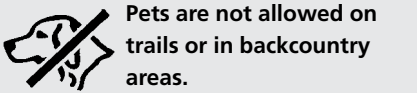
Having a pet with you will limit your activities and explorations in the park. In addition, desert temperatures and predators are a serious threat to your pet's well being. Please keep in mind the following points when bringing a pet to the park:

- A National Park is a refuge for the animals and plants living within it. Even if your pet doesn't chase animals, dogs present the image and scent of a historical predator. The result is stress on native wildlife.
- Keep your pet on a leash no longer than six feet in length (or in a cage) at all times. Pets are not allowed on park trails, or anywhere off established roadways. Pets may not be left unattended in the park.
- Pet etiquette and park regulations require that you always clean up after your pet and dispose of waste in trash receptacles.
- *Predators such as owls, coyotes, javelina, and mountain lions CAN and DO kill pets here.* Even large dogs cannot defend themselves against such predators.

Remember, desert heat is *deadly*. Do NOT leave your pet alone in a vehicle. Pets are not allowed on trails, off roads, or on the river.



**Pets must be on a leash at all times.**



**Pets are not allowed on trails or in backcountry areas.**



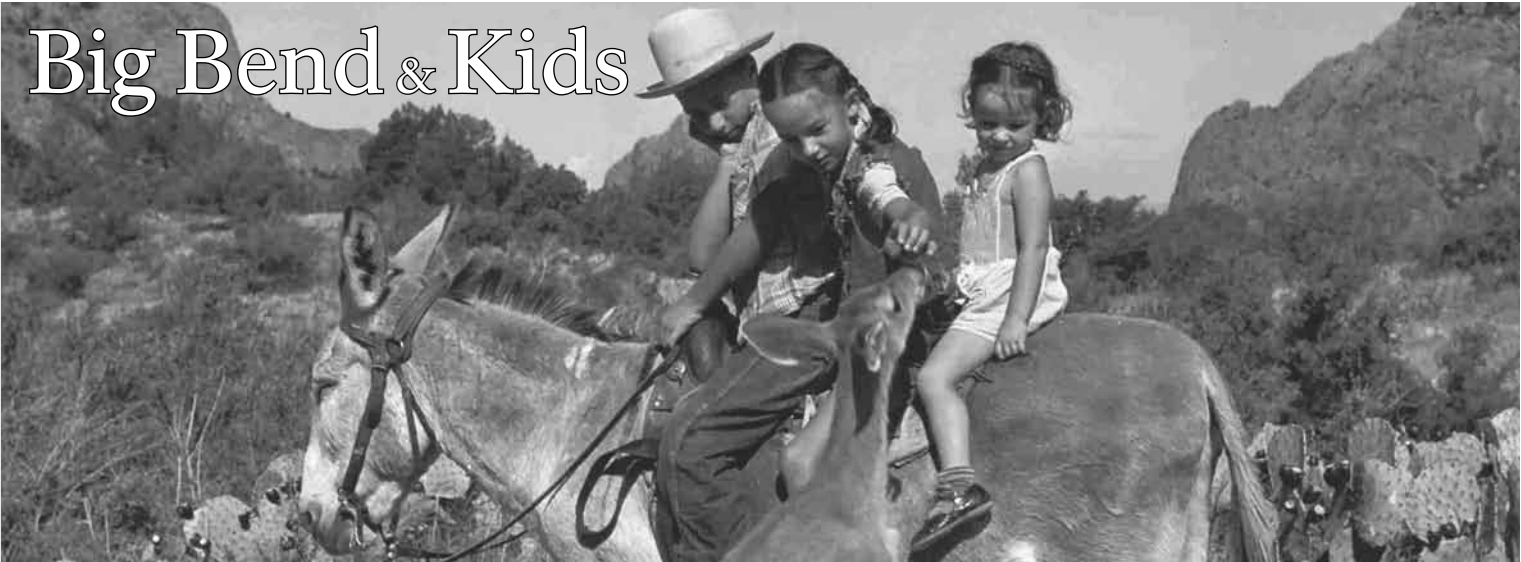
**Kennels**

The following kennel and veterinary services operate in the greater Big Bend area:

**Alpine Veterinary Clinic**  
Alpine, Texas  
(432) 837-3888

**Alpine Small Animal Clinic**  
Alpine, Texas  
(432) 837-5416

# Big Bend & Kids



Due to illegal feeding by visitors, some deer thought there was a snack in every outstretched hand. Of course, good Jr. Rangers today know not to feed animals in national parks.

## Explore!

Big Bend's habitats range from the Chihuahuan Desert to the Rio Grande to the Chisos Mountains, and all are rich with plants, animals, and stories of human history, giving children plenty of opportunity to explore.

Kids visiting the park enjoy the exhibits and relief map of the park at the Panther Junction Visitor Center, the Fossil Bone Exhibit area, the Hot Springs, the sand dune in Boquillas Canyon, the mountain lion exhibit at the Chisos Basin Visitor Center, and the hands-on exhibits at the Castolon Visitor Center.

Get kids involved in ranger-led programs. These include guided hikes, slide programs, bird walks, and explorations of various park features. Check the schedule at any visitor center to make sure you take advantage of all the available programs. Stop by any visitor center for further suggestions.

## Hike a Trail!

Many park trails are suitable for families. Consult the listing of Easy and Moderate Hikes on page 9. For children in strollers, consider the Window View Trail, a paved ¼-mile loop trail that begins at the Chisos Basin trailhead. Remember to watch children closely and never let them run ahead or lag behind.

## Be Safe

Be sure to talk to your children about safe behavior before you begin hiking or exploring the park. Require children to walk with adults, rather than by themselves. Keep all your children with you and stand as a group. Desert vegetation can be sharp; have a first aid kit and tweezers handy. Please see pages 11 and 15 for additional safety information.



## Become a Junior Ranger!

Learn desert secrets, identify the parts of a cactus, and discover what javelina eat! The Big Bend Junior Ranger program is designed for kids of all ages. Through activities, games, and puzzles, kids can have fun as they learn about the park. They can also earn a badge or patch, a bookmark, and a certificate. The Junior Ranger Activity Book costs \$2.00 and is available at all park visitor centers.

## Is there any place to swim in the park?

At the risk of repeating the obvious, Big Bend is a desert park; water is a precious commodity here and often difficult to find. *Swimming in the Rio Grande is not recommended.* See page 15 for important water safety information. The end of the Boquillas Canyon Trail and the Santa Elena Canyon trailhead area may be suitable for wading at certain times of the year (always check river conditions first). You can soak in the 105°F Hot Springs (near Rio Grande Village). When the Rio Grande rises due to rain, the hot spring becomes submerged.

*If you really want to swim*, Balmorhea State Park (about a three-hour drive north of Big Bend) boasts the “world’s largest spring-fed swimming pool.” Contact Balmorhea State Park at 432 375-2370 for more information.

# Leave No Trace in Big Bend

### Plan ahead and prepare

Big Bend is a land of extremes. Plan on high desert temperatures in the summer with little to no shade; in the winter freezing temperatures are possible in the Chisos Mountains. Schedule your visit to avoid peak season. Visit in small groups. Split larger parties into groups of 4-6. Use a map and compass to eliminate the use of marking paint, rock cairns or flagging.

### Travel and Camp on Durable Surfaces

Durable surfaces include established trails and campsites, rock, and gravel. Protect riparian areas by camping at least 100 yards from springs, creek beds, and tinajas. Good campsites are found, not made. While on the trail, walk in single file in the middle of the trail, even when wet or muddy. Keep campsites small. Focus on areas where vegetation is absent.

### Dispose of Waste Properly

Pack it in, pack it out. Inspect your campsite and rest areas for trash or spilled foods. Pack out all trash, leftover food, and litter. Deposit solid human waste in cat-holes dug 6 to 8 inches deep at least ¼ mile from water, camp, and trails. Cover and disguise the cat-hole when finished. *Pack out toilet paper and hygiene products.*

### Leave What You Find

Preserve the past. Examine, but do not touch, cultural or historic structures and artifacts. Leave rocks, wildflowers and other natural objects as you find them. Avoid introducing or transporting non-native species. Do not build structures, furniture, or dig trenches.

### Minimize Campfire Impacts

*Campfires are not allowed in Big Bend National Park.* In order to cook foods you may use a backpacking stove, portable fuel stove or the barbeque grills in your campsite.

### Respect Wildlife

Observe Big Bend's wildlife from a distance. Do not follow or approach them. Never feed wild animals. Feeding wild animals damages their health, alters natural behaviors, and exposes them to predators and other dangers. Protect wildlife and your food by storing rations and trash securely. Pets are not allowed in the backcountry or on trails. Pets should be on leash and under supervision at all times.

### Be Considerate of Other Visitors

Respect other visitors and protect the quality of their experience. Be courteous. Yield to other users on the trail. Step to the downhill side of the trail when encountering pack stock. Take breaks and camp away from trails and other visitors. Let nature's sound prevail. Avoid loud voices and noises.



It's not just about today—do your part to maintain the resources of Big Bend exactly as you see them, just as those who came before took care of this place for you.





# Backcountry Planning

## Getting a Permit

A permit is required for all river use, horse use, and overnight backcountry camping, and can be obtained in person only, up to 24 hours in advance of the trip. Permits can can be written for as many as fourteen (14) consecutive nights in the backcountry. Park staff can assist you with trip planning based on your needs and current trail conditions. Permits can be obtained at all visitor centers during normal operating hours.

## Overnight Use Fee

A \$10-per permit fee is required for all overnight backcountry use permits, including multi-day river trips, and overnight backcountry camping. This fee is payable when the permit is issued, and all funds collected go to projects to improve or protect the backcountry experience, including hardening/improving river access points, backcountry campsite maintenance, and trail maintenance.

## Plan Ahead

Detailed information on backcountry campsites in the Chisos Mountains and along the backcountry roads is available on the park’s website at [www.nps.gov/bibe](http://www.nps.gov/bibe) A wide variety of maps, books, hiking guides and river guides is available for purchase at park visitor centers. If you would like to order them in advance of your trip, call the Big Bend Natural History Association at 432 477-2236 or visit their online bookstore at [www.bigbendbookstore.org](http://www.bigbendbookstore.org)

## Hiking & Backpacking

Big Bend National Park offers over 200 miles of hiking trails in the Chisos Mountains and desert terrain. A permit is required for all overnight trips in the backcountry. Decide how much distance you want to cover and how much time you have. Desert hiking can be unpleasant or deadly in hotter months.

In the Chisos Mountains, the Southeast Rim Trail and a portion of the Northeast Rim Trail from the Boot Canyon/Southeast Rim junction are closed during the peregrine falcon nesting season (February 1 - May 31).

Zone camping permits are available for those who wish to camp outside of the Chisos Mountains. The park is divided into a number of zones ranging from areas along popular trails to extremely isolated areas.

## Backcountry Roads

For those who wish to camp in the backcountry without having to backpack, Big Bend offers over seventy primitive campsites along backcountry roads. While some sites are accessible to most vehicles, a high clearance and/or four wheel drive vehicle is necessary to reach others. Other than a nice view, isolation, and a flat gravel space, these sites offer no amenities and no shade. A backcountry permit is required to use these sites.

## Backcountry Water

The dry desert air quickly uses up the body’s water reserves. Each hiker should carry and drink a minimum of one gallon of water for each day they are in the backcountry. Spigots for drinking water are available at all visitor centers. Big Bend is a desert environment. Springs and tinajas (depressions in rock where water collects) are rare and often unreliable. Water should be filtered. Every gallon removed from backcountry water sources is one less for the wildlife which depend on them. Please carry enough water to supply your own needs—don’t risk your life by depending on desert springs. Caching water is recommended for extended hiking trips in the desert.

## Horses

Visitors are welcome to bring and use their horses in the park. A stock-use permit is required and may be obtained in person at any of the park’s visitor centers up to 24 hours in advance of the trip. Every horse user should obtain a copy of the regulations regarding use of horses in the park.

While horses are not permitted on paved roads or road shoulders, all gravel roads are open to horses. Cross-country travel is permitted in the park, except in the Chisos Mountains. The Chisos Mountain and Burro Mesa trails are day-use only.

Standard Backcountry Road Conditions		
	Road usually open to:	Notes
Croton Spring	All Vehicles	Slippery mud after any rain
Dagger Flat	All Vehicles	Bumpy but ok for cars; very sandy near end of rd.
Glenn Springs	High Clearance	Narrow road; no RVs, trailers or wide vehicles
Grapevine Hills	High Clearance	Sometimes passable for all vehicles to trailhead
Hot Springs	All Vehicles	Narrow road; no RVs, trailers or wide vehicles
North Rosillos	High Clearance	Deep ruts and sand; little-traveled
Juniper Canyon	High Clearance	High-clearance vehicles only; rough, rocky, & slow
Old Maverick	High Clearance	Rough; often impassable after heavy rains
Old Ore	High Clearance	High-clearance vehicles only, 4X4 recommended
Paint Gap	All Vehicles	High-clearance past PG 3 campsite
Pine Canyon	High Clearance	High-clearance vehicles only; rough, rocky, & slow
River Road East	High Clearance	High-clearance vehicles only
River Road West	High Clearance	High-clearance vehicles only, 4X4 recommended
Black Gap	4X4 only	<b>4x4 required! Never Maintained</b>
<i>Always inquire</i> at a visitor center regarding updated road conditions before heading out, and be prepared for any contingency. Weather conditions (such as heavy, or any, rain) may cause road conditions to deteriorate. Remember: all vehicles must be street legal and stay on established roadways.		

## Backcountry Regulations

**Groundfires and woodfires are prohibited.**  
Use only gas stoves or charcoal within a BBQ grill. Pack out all evidence of use. Smoking is prohibited on all Chisos Mountains trails.

**Pack out all trash**  
Help preserve the park’s natural beauty by packing out all trash including cigarette butts and toilet paper.

**No pets on trails or in the backcountry.**  
Pets may harm or be harmed by wildlife, and can attract predators.

**Do not cut switchbacks on trails.**  
Although cross-country hiking is allowed, help prevent trail erosion by staying on marked trails.

**Collecting any natural or historical feature or object is prohibited.**  
Leave park features intact for others to enjoy.

**Contaminating natural water sources and their surroundings is prohibited. Camp at least 100 yards from any water source.**  
Desert water sources and springs are fragile and vital for the plants and animals that depend on them for survival. Soaps, oils, skin lotions, and food residues from bathing and washing can seriously impact water quality. Minimize your impact to areas surrounding springs, seeps, and other temporal water sources.

**Camp within designated sites.**  
When camping in a designated site prevent resource damage by camping within the area outlined by rocks, logs, or brush.

**Generator use is not permitted in backcountry campsites.**  
Natural quiet is a protected resource; help preserve a quiet wilderness experience.

**In open zones, camp at least 1/2 mile and out of sight from any road and at least 100 yards from any trail, historical structure, arceological site, dry wash, or cliff edge.**  
Minimize your impact to the natural landscape.

**Bury human waste at least 6 inches deep. Pack out toilet paper.**  
Human waste is unsightly and unsanitary. Carry a digging trowel. Locate latrines 1/4 mile from any water source and well away from camp.

**Motorized vechicles and bicycles are permitted only on designated public roads.**  
Off -road vehicle travel causes visual and environmental damage.

**Food Storage**  
Keep food, ice chests and cookgear in a hard-sided vehicle or food storage locker where provided. Remember that when people leave open food containers and trash laying around the site that they are inadvertently feeding animals, so keep trash contained in vehicles or bear boxes.

**Do not feed wildlife.**  
Feeding wildlife is illegal. Animals that become dependent on human food often have to be destroyed.



One of the last remaining ore tramway towers left standing in the park. Towers like this can be found along the backcountry Ore Terminal Trail.



# Safety is *Your* Responsibility

*Big Bend is unfamiliar country to most visitors yet it need not be dangerous. Whether hiking the highcountry, rafting the Rio Grande, observing wildlife, or simply driving the scenic roads of this wilderness park, let safety be your constant companion. Spend a moment reviewing these common safety concerns so that you may have an enjoyable visit.*

*Big Bend is wild country. In fact, many people visit precisely because it is so remote and rugged. But remember, as you enjoy the splendor of this great wilderness area, to make safety a priority. By giving forethought to your actions you can have a safe, exciting, and rewarding experience in Big Bend National Park.*

## Driving

Of the few accidental deaths in Big Bend that occur some years, most result from car accidents. Drive within the speed limit, 45 mph maximum in the park, and watch for javelina, deer, and rabbits grazing along road shoulders, especially at night. Federal regulations require that ALL occupants of a vehicle wear seats belts while in a national park. Remember, too, that you share the road with bicyclists and pedestrians. Some park roads, such as the road into the Chisos Basin, are steep and winding and require extra caution. The Basin Road is not recommended for RVs over 24 feet or trailers over 20 feet. Finally, always select a designated driver before drinking alcoholic beverages.

## Heat and Dehydration

*Desert heat can kill you.* Carry and drink at least one gallon per person, per day. Wear a hat, long pants, long-sleeved shirt, and sun screen when hiking. Springs are unreliable and often dry up for much of the year. Travel in the early morning or late evening hours rather than during the heat of the day.

## Mountain Lions

Big Bend is mountain lion country, especially the Chisos Mountains. While lion attacks are rare, two have occurred in the last twenty years. Should you encounter an aggressive mountain lion, hold your ground, wave your arms, throw stones, and shout. Never run. Keep groups together and consider hiking elsewhere with young children if you come across a special mountain lion warning sign posted at a trailhead.

## Hiking

Exploring this desert and mountain country on foot requires both mental and physical preparation. Trails vary from well maintained in the Chisos to primitive and barely visible in the desert. Plan hikes within your ability. Take along a map and compass and know how to use them. Flash floods may occur following thunderstorms so avoid narrow canyons or dry washes. Stay low and avoid ridges during thunderstorms. Carry a flashlight and a first aid kit. Let someone know where you’re going and when you expect to return. If you get hurt or lost, stay in one place to conserve water and energy.

## Fire

Fire danger is always an important safety consideration in Big Bend. *Wood or ground fires are not permitted in the park*, and you must exercise caution in the use of gas stoves, charcoal grills, and cigarettes. During drought conditions some restrictions may apply to the use of these heat sources. Check with a ranger for the latest information about fire safety in the park. *Smoking is prohibited on all trails in the Chisos Mountains.*

## Poisonous Animals

Venomous snakes, scorpions, spiders, and centipedes are all active during the warmer months. Wear shoes or boots at night instead of sandals. Inspect shoes and sleeping bags or bedding before use and always carry a flashlight at night. While snake bites are rare, they usually occur below the knee or elbow. Pay attention to where you walk and place your hands.

## Desert Wildlife

Black bears, javelinas, skunks, coyotes, and raccoons frequent Big Bend’s campgrounds. Although they sometimes appear tame, all of the animals in the park are wild, and could pose a threat to your health and safety if you attempt to approach or feed them. *Never feed any of Big Bend’s wildlife.* To prevent these creatures from becoming habituated to people, store all food, coolers, cooking utensils, and toiletries in a hard-sided vehicle, preferably in the trunk of your car. Food storage lockers are available for hikers and campers in the Chisos Mountains. Dispose of garbage properly in the special animal-proof dumpsters and trash cans provided.

Remember to report all bear or mountain lion sightings to a ranger.

## Swimming

Hot weather makes the muddy Rio Grande look very inviting, but swimming is not recommended. Water-borne micro-organisms and other waste materials can occur in the river and cause serious illness. The river can be hazardous, even in calm-looking water. Strong undercurrents, deep holes, and shallow areas with sharp rocks and large tree limbs are common and make the Rio Grande unsafe for swimming. If you do choose to swim, wear a life jacket and avoid alcohol.

*If you really want to swim*, Balmorhea State Park (three hours north of Big Bend) boasts the “world’s largest spring-fed swimming pool.” Contact Balmorhea State Park at 432 375-2370 for more information.



## Share the Road

Every year park rangers investigate an increasing number of motorcycle accidents. Unfortunately, a significant number involve serious injuries.

### Be alert

Animals may dart out from road edges. Other drivers may pay too much attention to the scenery and cross over the center line into your travel lane or may suddenly stop their vehicles in the middle of the road to observe wildlife. These and other unforeseen conditions can lead to motorcycle accidents.

### Suggestions for Motorcycle Riding

- Watch for vehicles straying over the center line.
- Stay alert for sudden stops or traffic slow-downs, especially around scenic pullouts or other congested areas.
- Wear brightly colored clothing or jackets to increase visibility to other motorists.
- Be aware of road surfaces as you ride. Never over-ride the road conditions.
- Watch for wildlife at the road edge.
- Secure your motorcycle and valuables when you are away from your bike.
- Ride with headlights on.

## Survive the Sun

In all seasons, whether walking, backpacking, or day hiking, follow these tips to conserve your internal water reserves:

**REDUCE YOUR ACTIVITY**  
During the warmest days, generally from May through August, avoid hiking in the lower elevations during the heat of the day—generally from 10:00 am to 6:00 pm.

**FIND SHADE**  
Shade in the desert means the difference between excessive heat gain from the radiant sun and sheer comfort. In an emergency, a person resting in the shade will survive longer than someone exposed to the sun.

**DRINK YOUR WATER**  
Don’t try to conserve the drinking water you have. Whether strolling in the Basin, or hiking the South Rim Trail, you must DRINK your available water. Carry plenty of drinking water—at least 1 gallon per person per day. Balance your food and water intake. Eat a salty snack every time you take a drink of water.

**REDUCE ALCOHOL & CAFFEINE INTAKE**  
Water is the best remedy for dehydration and listlessness. The diuretic effects of caffeine and alcohol can result in an accelerated loss of body water.

**PROTECT YOUR BODY**  
Our sensitive skin burns easily; it needs shade, sunscreen, sunglasses, a widebrimmed hat, and proper footwear. Dehydration is accelerated by exposed skin, so keep your clothing on. Wear long-sleeved, loose-fitting, light-colored clothes.

# Weather and Climate

## Weather

Elevational differences in Big Bend mean that temperatures can be vastly different in different areas of the park. The lower areas along the Rio Grande are very hot during the summer months, while the Chisos Mountains are considerably cooler. Winter weather generally occurs between November and February, with temperatures dropping dramatically as cold fronts move through the area. Between June and October thunderstorms and flash floods may occur. Bring clothing for both warm and cool weather, as well as rain gear, when visiting Big Bend any time of the year.

## Summer and Fall

Temperatures along the river tend to be the warmest in the park. Plan your activities with the weather in mind; visit the river in the morning, and always carry plenty of water. Higher elevations in the Chisos Mountains lead to lower temperatures. July brings thunderstorms; precipitation can liven up the landscape, but rains can reap havoc on the primitive roads throughout the park.

### How Hot Is It?

	Avg. High/Low	Avg. Rainfall”
January	61/35	.46
February	66/34	.34
March	77/45	.31
April	81/52	.70
May	88/59	1.50
June	94/66	1.93
July	93/68	2.09
August	91/66	2.35
September	86/62	2.12
October	79/53	2.27
November	66/42	.70
December	62/36	.57
Yearly Avg.	79/47	15.34”
Temperatures in the Chisos Basin vary 5-10 degrees below these readings, while daytime temperatures along the Rio Grande average 5-10 degrees warmer.		



## Area Phone Numbers

## Services inside the Park

<b>EMERGENCY</b>	<b>Call 911</b>
<b>National Park Service</b>	
General Information	432 477-2251
<b>Big Bend Natural History Association</b>	
Booksales & Seminars	432 477-2236
<b>Visitor Centers</b>	
Castolon	432 477-2666
Chisos Basin	432 477-2264
Panther Junction	432 477-1158
Persimmon Gap	432 477-2393
Rio Grande Village	432 477-2271
<b>U.S. Post Office</b>	
Panther Junction	432 477-2238
<b>Lodging / Restaurant</b>	
Chisos Mountains Lodge	432 477-2291
<b>Park Gasoline Service</b>	
Panther Junction	432 477-2294
Rio Grande Village (no diesel)	432 477-2293
<b>Campground Stores</b>	
Rio Grande Village	432 477-2293
Chisos Basin	432 477-2291
Castolon	432 477-2222

## Services outside the Park

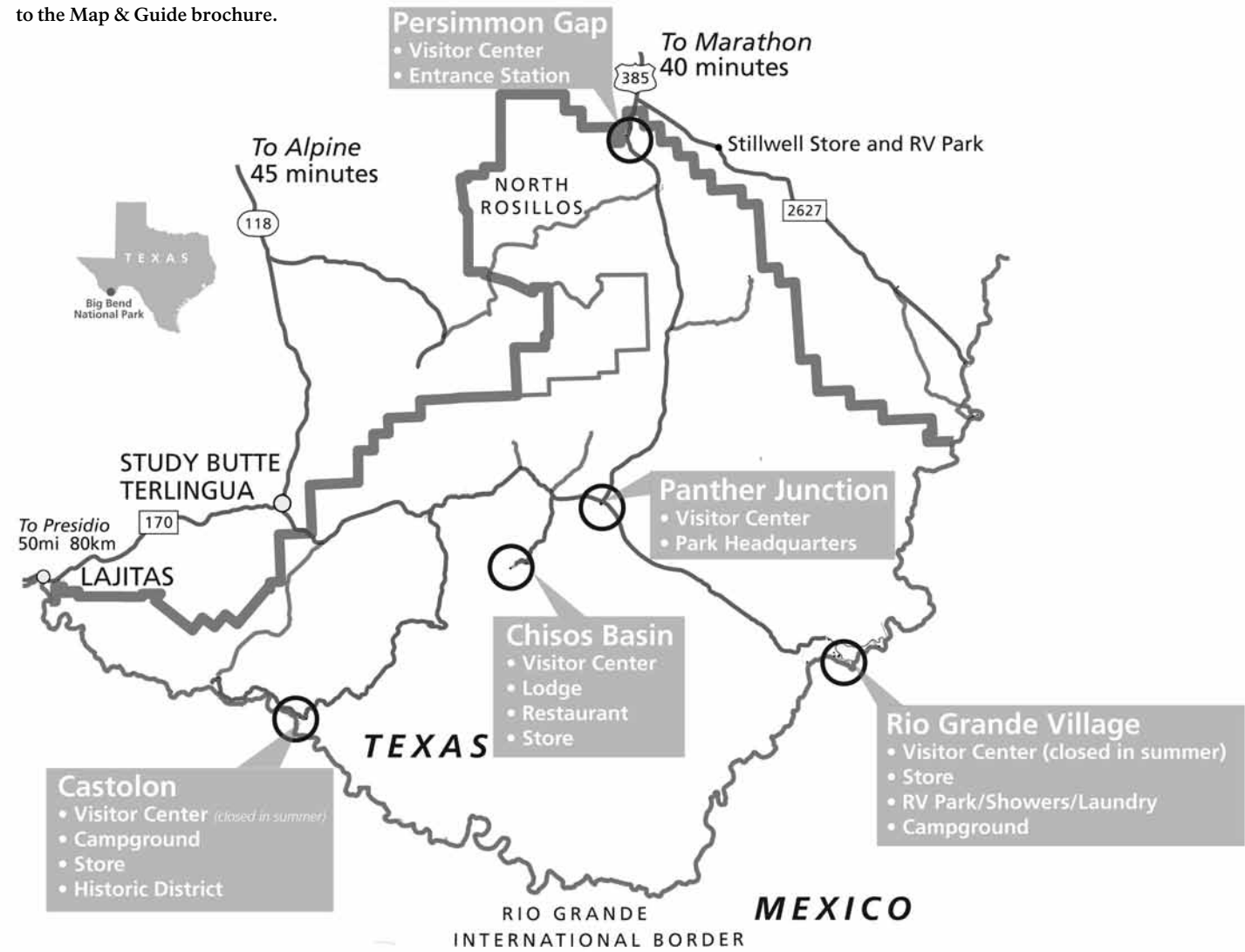
<b>Lodging</b>	
<i>Lajitas</i>	
Lajitas Resort	877 525-4827
<i>Marathon</i>	
Gage Hotel	432 386-4205
Marathon Motel	432 386-4241
<i>Study Butte/Terlingua area</i>	
Big Bend Motor Inn	800 848-2363
Easter Egg Valley Motel	432 371-2254
El Dorado Motel	432 371-2111
Longhorn Ranch Hotel	432 371-2541
Ten Bits Ranch	866 371-3110
<b>Camping</b>	
Big Bend Motor Inn	800 848-2363
Big Bend Ranch State Park	432 424-3327
Longhorn Ranch	432 371-2541
Stillwell's Trailer Camp	432 376-2244
Study Butte RV Park	432 371-2468
<b>Convenience Stores/Gasoline</b>	
Big Bend Motor Inn	800 848-2363
Cottonwood Store	432 371-3315
Study Butte Store	432 371-2231
Stillwell Store & Station	432 376-2244
Terlingua Store	432 371-2487
<b>Medical Services</b>	
Terlingua Fire/Ambulance	911
Big Bend Medical Center	432 837-3447
<b>Banks</b>	
Quicksilver Bank/ATM	432 371-2211
<b>Float Trip Outfitters/Rentals/Guide Services</b>	
Big Bend River Tours	800 545-4240
Desert Sports	888 989-6900
Far Flung Outdoor Center	800 839-7238
<b>Horseback Riding</b>	
Big Bend Stables	800 887-4331
Lajitas Livery	432 424-3238

The facilities and services listed here are located within the greater Big Bend area, and vary from 30 to 100 miles from Big Bend National Park. The communities of Terlingua/Study Butte (30 miles west) and Marathon (70 miles north) offer basic services, including gas stations, restaurants, lodging, and campgrounds. Alpine, 100 miles to the northwest of the park, offers the greatest number of services.

This listing of local services is a courtesy to our visitors and implies no endorsement by the National Park Service or Big Bend National Park

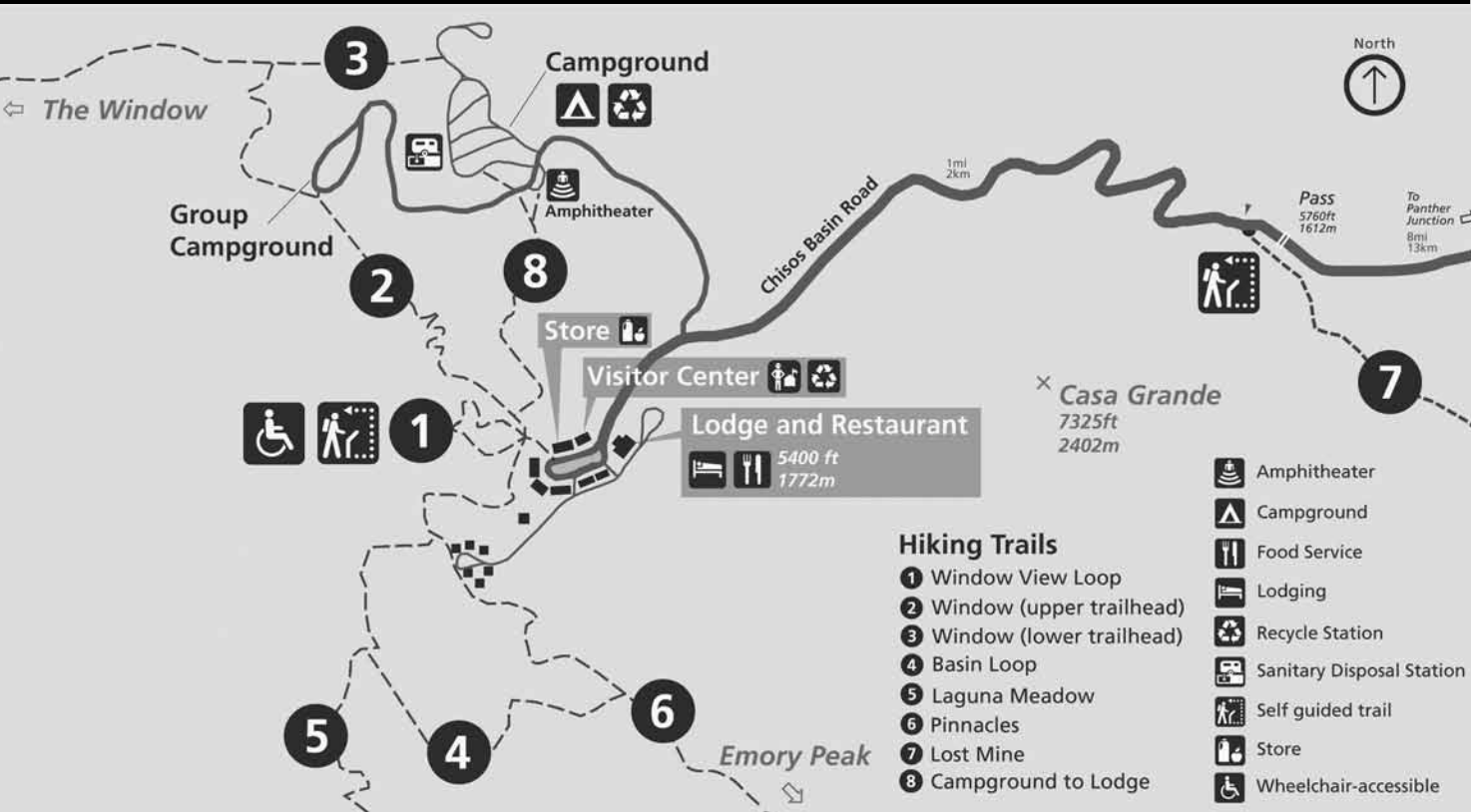
## Park Overview Map

For a more detailed park map refer to the Map & Guide brochure.



## Chisos Basin

5401ft 1646m



## Rio Grande Village

1850ft 564m

